DOCUMENT RESUME

ED 220 191 PS 012 991

AUTHOR	Donovan, Carole L.; And Others
TITLE	Development of an Alcohol Education and Traffic Safety Module for Elementary School, Kindergarten Through Sixth Grade.
INSTITUTION	Columbia Univ., New York, N.Y. Teachers College.
SPONS AGENCY	AAA Foundation for Traffic Safety, Falls Church, Va.
PUB DATE	82
NOTE	459p.
EDRS PRICE	MF01/PC19 Plus Postage.
DESCRIPTORS	*Alcohol Education; Curriculum Development; *Curriculum Evaluation; Elementary Education; *Elementary School Students; Field Tests; Guidelines; *Instructional Materials; *Kindergarten Children; Learning Modules; Lesson Plans; Measurement Techniques; Pretests Posttests; Tests; *Traffic Safety

ABSTRACT

This document provides field-tested instructional modules focusing on the use and misuse of alcoholic beverages for students in kindergarten through sixth grades. Modules for each of the seven grade levels consist of five lessons, each including introductory sections describing instructional objectives, content of the lesson, recommended teaching techniques, and materials needed. Objectives and lesson content were rated for grade appropriateness by 20 theoreticians in alcohol and traffic safety education and 321 experienced elementary school teachers from 35 schools in 7 states. Two hundred and ninety kindergarten through sixth-grade teachers from nine cities in eight states were trained in the use of a field-testing version of the modules. Participating teachers presented the modules to 3,051 pupils at 51 public and private schools representing urban, suburban, and rural areas. In these same settings an additional 2,636 pupils participated in a controlled study of effectiveness. Teachers critiqued the modules page by page, then evaluated the instructional materials implemented at their grade level. The results of these and additional evaluations are presented in an appendix to the document. Other appendices provide a list of professional references with selected annotations and a list of categories of stored project data. (RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED220191

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

PS

Development of an
ALCOHOL EDUCATION AND TRAFFIC SAFETY MODULE FOR ELEMENTARY SCHOOL, KINDERGARTEN THROUGH SIXTH GRADE

Carole L. Donovan, Ed.D.
Elizabeth P. Hagen, Ph.D.
Monica M. Homer, Ed.D.
Marilynn G. Kennell, M.A.
James L. Malfetti, Ed.D.

Safety Research and Education Project
Teachers College, Columbia University
New York, New York 10027

PS 012991

Sponsored by
AAA Foundation for Traffic Safety
8111 Gatehouse Road
Falls Church, Virginia 22047
1982

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Sam Yaksich, Jr.
AAA Foundation for Traffic Safety
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

TABLE OF CONTENTS

BACKGROUND AND ACKNOWLEDGEMENTS . . . xiii

INTRODUCTION . . . 1

Drinking Problems of Adults . . . 1
Drinking Problems of Teenagers . . . 3
Drinking Problems of Junior High School Students . . . 5
Drinking Problems of Children . . . 6
Need for an Elementary School Module . . . 8

ALCOHOL EDUCATION AND TRAFFIC SAFETY MODULE, KINDERGARTEN THROUGH SIXTH GRADE (K-6) . . . 9

Developmental . . . 12
Field-Testing . . . 13
Goal and Objectives . . . 14
Evaluation . . . 17
Organization by Grade Level . . . 20

KINDERGARTEN . . . 22

Objective . . . 22
Content . . . 22
Teaching Techniques . . . 22
Materials Needed . . . 23

K-Lesson I *MY SHADOW* . . . 24

K-Lesson II *I'M A SPECIAL ME* . . . 25

K-Lesson III *WHAT MAKES ME HEALTHY?* . . . 26

Handout: *WHAT MAKES ME HEALTHY?* . . . 27

K-Lesson IV *WHICH OF THESE THINGS IS NOT LIKE THE OTHERS?* . . . 28

Teacher's Demonstration Copy: *WHICH OF THESE THINGS IS NOT LIKE THE OTHERS?* . . . 30

Handouts: *WHICH OF THESE THINGS IS NOT LIKE THE OTHERS?* . . . 31

Pictures of *BEER*, *WINE*, and *CHAMPAGNE* . . . 33

K-Lesson V *MR. AND MRS. SMITH'S SHADOWS* . . . 36

Picture of *MR. AND MRS. SMITH'S SHADOWS* . . . 37

Handout: *WHAT MAKES ME HEALTHY?* . . . 38

3/4

GRADE ONE 39

Objectives 39
Content 39
Teaching Techniques 40
Materials Needed 40

1-Lesson I *PICTURE SELECTION* 41

Handout: *PICTURE SELECTION (A)* 43

Handout: *PICTURE SELECTION (B)* 44

1-Lesson II *DRAW ME A PICTURE* 45

1-Lesson III *WHICH OF THESE THINGS IS NOT LIKE THE OTHERS?* . 47

Teacher's Copy for Cut-Outs:
Examples of Drugs (alcohol, nicotine, caffeine) 50

Teacher's Demonstration Copy:
WHICH OF THESE THINGS IS NOT LIKE THE OTHERS? . 53

Handouts:
WHICH OF THESE THINGS IS NOT LIKE THE OTHERS? . 54

1-Lesson IV *ME TREE* 56

Handout: *ME TREE* 58

1-Lesson V *LET'S PRETEND* 59

GRADE TWO 61

Objectives 61
Content 61
Teaching Techniques 62
Materials Needed 62

2-Lesson I *PICTURE SELECTION* 63

Handout: *PICTURE SELECTION (A)* 65

Handout: *PICTURE SELECTION (B)* 66

2-Lesson II *ADVENTURES OF FROGGY AND DODO* 67

2-Lesson III *SAFE OR NOT SAFE?* 69

Handouts: *SAFE OR NOT SAFE?* 72

GRADE TWO (Continued)

2-Lesson IV *FIND THE WORD* AND *DECODE THE WORDS AND MESSAGES* 74

Teacher's Copy with Answers: *FIND THE WORD* 76

Handout: *FIND THE WORD* 77

Teacher's Copy with Answers: *DECODE THE WORDS AND MESSAGES* 78

Handout: *DECODE THE WORDS AND MESSAGES* . . . 79

2-Lesson V *COME TO THE HEAD OF THE CLASS* 80

Teacher's Question-and-Answer Sheet: *COME TO THE HEAD OF THE CLASS* 82

Answer Cards for *COME TO THE HEAD OF THE CLASS* 83

GRADE THREE 86

Objectives 86
Content 86
Teaching Techniques 87
Materials Needed 87

3-Lesson I *LAND OF PANS* AND *REBUS PUZZLE* 88

Narrative for *LAND OF PANS* Filmstrip 89

Teacher's Copy with Answers: *REBUS PUZZLE* . . 93

Handout: *REBUS PUZZLE* 94

3-Lesson II *DECODE THE WORDS* AND *"I LEARNED"* 95

Teacher's Copy with Answers: *DECODE THE WORDS* . 97

Handout: *DECODE THE WORDS* 98

3-Lesson III *MINI-LECTURE* AND *ALCOHOL DEMONSTRATIONS* 99

3-Lesson IV *MATCH-UP* AND *SKITS* 101

3-Lesson V *PUPPETRY* 104

GRADE FOUR 105

Objectives 105
Content 105
Teaching Techniques 106
Materials Needed 107

4-Lesson I *ALMOST EVERYONE DOES* 108

Sound Track for *ALMOST EVERY DOES* 110

4-Lesson II *BATTER-UP/ALCOBALL* 113

Teacher's Question-and-Answer Sheet:
BATTER-UP/ALCOBALL 115

4-Lesson III *FREE TO BE* AND *PUPILS' LAP BOOK* 120

4-Lesson IV *CHARADES* AND *SLOGANS ON YOUR CB* 123

4-Lesson V *VALUES VOTING* AND *PUPILS' LAP BOOK* 126

GRADE FIVE 129

Objectives 129
Content 129
Teaching Techniques 131
Materials Needed 132

5-Lesson I *ALCOHOL: HOW MUCH IS TOO MUCH?* AND *JEOPARDY* . 133

Sound Track for *ALCOHOL: HOW MUCH IS TOO MUCH?* 136

Teacher's *JEOPARDY* QUESTION-AND-ANSWER SHEET . 138

5-Lesson II *JUNGLE JAMBOREE* 139

Handout:
JUNGLE JAMBOREE: DESCRIPTION OF ANIMALS . . . 141

Pupil's Copy:
JUNGLE JAMBOREE: DETECTIVE WORKSHEET 143

Teacher's Copy:
JUNGLE JAMBOREE: DETECTIVE WORKSHEET 146

5-Lesson III *PURPLE MYSTERY* AND *RISKS RATIO* 151

5-Lesson IV *"RIGHTS" AND "RESPONSIBILITIES" BUTTONS* AND
ROLE PLAY 154

GRADE FIVE (Continued)

Handout: *"RIGHTS" AND "RESPONSIBILITIES" BUTTONS* 156

5-Lesson V *JOEY AND ME* AND *LET'S HAVE A PARTY* 157

Sound Track for *JOEY AND ME* 159

GRADE SIX 162

Objectives 162
Content 162
Teaching Techniques 164
Materials Needed 165

6-Lesson I *FACT WHEEL* AND *THINKING ABOUT DRINKING* 167

Sound Track for *THINKING ABOUT DRINKING* . . . 169

Handout: *FACT WHEEL* 174

6-Lesson II *MINI-LECTURE* AND *ALCOHOL PYRAMID* 175

ALCOHOL PYRAMID: GAME CARDS AND BOARD GAMES . 177

6-Lesson III *CHARADES* AND *TRIGGER FILMS* 178

6-Lesson IV *BREAKING HABITS* AND *DEAR ABBY ALCOHOL* 181

6-Lesson V *ALL BOTTLED UP* AND *ROLE PLAY* 184

Sound Track for *ALL BOTTLED UP* 189

APPENDIX A -- PROFESSIONAL REFERENCES WITH SELECTED ANNOTATIONS . . 193

APPENDIX B -- EVALUATION SUMMARY (Table of Contents) 203

INTRODUCTION 207

SECTION ONE: FIELD-TESTING EVALUATIONS BY TEACHERS AND PUPILS AND THROUGH *PRE/POSTTEST* BATTERIES 208

Teachers' Evaluation of the Entire K-6 Module . . . 208
Results 215
Pupils' Evaluation of the Module 220
Evaluation Through *Pre/Posttest* Batteries 220

Method 222
Instrumentation 224
Research Paradigm 234
Training of Teachers 235
Data Collection 236
Analysis of Data 237

Results 237

KINDERGARTEN 241

FIRST GRADE 248

SECOND GRADE 256

THIRD GRADE 269

FOURTH GRADE 280

FIFTH GRADE 297

SIXTH GRADE 312

SUMMARY OF GENERAL CHANGES IN THE OVERALL (K-6) MODULE 333

SECTION TWO: TEST BATTERIES--KINDERGARTEN THROUGH SIXTH GRADE . . . 334

KINDERGARTEN 338

FIRST GRADE 350

SECOND GRADE 370

THIRD GRADE 386

FOURTH GRADE 393

FIFTH GRADE 402

SIXTH GRADE 414

APPENDIX C DATA STORED AT TEACHERS COLLEGE, COLUMBIA UNIVERSITY 427

LIST OF TABLES vii

LIST OF TABLES

Table I, Teachers' Responses to Question Five (Items 1-4) of the Teacher's Evaluation Form by Mean ($\overline{X}$) and Total Percentage, for All States and Grades Combined (N=125) 217

Table II, Teachers' Responses to Question Six (Items 1-5) of the Teacher's Evaluation Form by Mean ($\overline{X}$) and Total Percentage, for All States and Grades Combined (N=125) 218

Table III, Teachers' Responses to Question Eight (Items 1-5) of the Teacher's Evaluation Form by Mean ($\overline{X}$) and Total Percentage, for All States and Grades Combined (N=125) 219

Table IV, Sample Size for Experimental and Control Groups at Each Grade Level, by State, Kindergarten Through Sixth Grade 223

Table V, Alpha Reliability Coefficients: Measures of Internal Consistency for Test Booklets, Grades Kindergarten Through Sixth 227

Table VI, Reliability Coefficients: Correlations Between Pretest and Posttest Scores for Control Groups for all Booklets Grades K-6 228

Table VII, Reliability Coefficients: Correlations Between Pretest and Posttest Scores for Control Groups for Specific Objectives 1-24 230

Table VIII, Location of Test Items to Measure Specific Objectives 1-24 231

Table IX, Mean Time for Administration of Test Booklets, By Grade, All States Combined 233

Table X, Summary of Significant Differences Between Experimental and Control Groups, Overall and by State, for Total Score on All Test Booklets Combined at Each Grade Level, Kindergarten Through Sixth 238

Table XI, Summary of Significant Differences Between Experimental and Control Groups, by Grade Level, All States Combined, for the 24 Specific Objectives 239

Table XII, Rank Order of the Impact of the Module on Specific Objectives by Ratio Between the Difference in Adjusted Posttest Mean Scores for Experimental and Control Groups and the Average Standard Deviation for the Posttest 240

Table XIII, Analysis of Covariance of Scores for Test Booklet Experimental vs. Control Groups, Grade K 246

Table XIV, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means for Test Booklet and Specific Objective 1, for Experimental and Control Groups, Grade K 247

Table XV, Analysis of Covariance of Scores for Total Booklets Experimental vs. Control Groups, Grade 1 252

Table XVI, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Total Booklets for Experimental and Control Groups, Grade 1 253

Table XVII, Analysis of Covariance of Scores for Specific Objective 1, Experimental vs. Control Groups, Grade 1 253

Table XVIII, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means for Specific Objective 1 for Experimental and Control Groups, Grade 1 254

Table XIX, Analysis of Covariance of Scores for Specific Objective 2, Experimental vs. Control Groups, Grade 1 255

Table XX, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 2 for Experimental and Control Groups, Grade 1 255

Table XXI, Analysis of Covariance of Scores for Total Booklets Experimental vs. Control Groups, Grade 2 261

Table XXII, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Total Booklets for Experimental and Control Groups, Grade 2 262

Table XXIII, Analysis of Covariance of Scores for Specific Objective 1, Experimental vs. Control Groups, Grade 2 262

Table XXIV, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 1 for Experimental and Control Groups, Grade 2 263

Table XXV, Analysis of Covariance of Scores for Specific Objective 2, Experimental vs. Control Groups, Grade 2 264

Table XXVI, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 2 for Experimental and Control Groups, Grade 2 264

Table XXVII, Analysis of Covariance of Scores for Specific Objective 3, Experimental vs. Control Groups, Grade 2 265

Table XXVIII, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 3, for Experimental and Control Groups, Grade 2 265

Table XXIX, Analysis of Covariance of Scores for Specific Objective 4, Experimental vs. Control Groups, Grade 2 266

Table XXX, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 4 for Experimental and Control Groups, Grade 2 267

Table XXXI, Analysis of Covariance of Scores for Total Booklets Experimental vs. Control Groups, Grade 3 274

Table XXXII, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Total Booklets for Experimental and Control Groups, Grade 3 275

Table XXXIII, Analysis of Covariance of Scores for Specific Objective 1, Experimental vs. Control Groups, Grade 3 276

Table XXXIV, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 1 for Experimental and Control Groups, Grade 3 276

Table XXXV, Analysis of Covariance of Scores for Specific Objective 2, Experimental vs. Control Groups, Grade 3 277

Table XXXVI, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 2 for Experimental and Control Groups, Grade 3 278

Table XXXVII, Analysis of Covariance of Scores for Specific Objective 3, Experimental vs. Control Groups, Grade 3 278

Table XXXVIII, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 3 for Experimental and Control Groups, Grade 3 279

Table XXXIX, Grade 4 Pupils' Responses to Question One (Items 1-5) of the Pupil's Evaluation Form by Mean ($\overline{X}$) and Total Percentage for All States Combined (N=397) 286

Table XL, Grade 4 Pupils' Responses to Open-Ended Question Two (Items 1-6) of the Pupil's Evaluation Form by Category and Percent for All States Combined 287

Table XLI, Grade 4 Pupils' Responses to Question Three (Items 1-8) of the Pupil's Evaluation Form by Mean ($\overline{X}$) and Total Percentage for All States Combined (N=397) 289

Table XLII, Analysis of Covariance of Scores for Total Booklets Experimental vs. Control Groups, Grade 4 290

Table XLIII, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Total Booklets for Experimental and Control Groups, Grade 4 291

Table XLIV, Analysis of Covariance of Scores for Specific Objective 1, Experimental vs. Control Groups, Grade 4 291

Table XLV, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 1 for Experimental and Control Groups, Grade 4 292

Table XLVI, Analysis of Covariance of Scores for Specific Objective 2, Experimental vs. Control Groups, Grade 4 292

Table XLVII, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 2 for Experimental and Control Groups, Grade 4 293

Table XLVIII, Analysis of Covariance of Scores for Specific Objective 3, Experimental vs. Control Groups, Grade 4 293

Table XLIX, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 3 for Experimental and Control Groups, Grade 4 294

Table L, Analysis of Covariance of Scores for Specific Objective 4, Experimental vs. Control Groups, Grade 4 294

Table LI, Pretest and Posttest Means, Standard Deviations, for Adjusted Posttest Means on Specific Objective 4 for Experimental and Control Groups, Grade 4 295

Table LII, Grade 5 Pupils' Responses to Question One (Items 1-5) of the Pupil's Evaluation Form by Mean ($\overline{X}$) and Total Percentage for All States Combined (N=521) 302

Table LIII, Grade 5 Pupils' Responses to Open-Ended Question Two (Items 1-6) of the Pupil's Evaluation Form by Category and Percent for All States Combined 303

Table LIV, Grade 5 Pupils' Responses to Question Three (Items 1-9) of the Pupil's Evaluation Form by Mean ($\overline{X}$) and Total Percentage for All States Combined (N=521) 305

Table LV, Analysis of Covariance of Scores for Total Booklets Experimental vs. Control Groups, Grade 5 306

Table LVI, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Total Booklets for Experimental and Control Groups, Grade 5 307

Table LVII, Analysis of Covariance of Scores for Specific Objective 1, Experimental vs. Control Groups, Grade 5 308

Table LVIII, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 1 for Experimental and Control Groups, Grade 5 308

Table LIX, Analysis of Covariance of Scores for Specific Objective 2, Experimental vs. Control Groups, Grade 5 309

Table LX, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 2 for Experimental and Control Groups, Grade 5 310

Table LXI, Analysis of Covariance of Scores for Specific Objective 3, Experimental vs. Control Groups, Grade 5 310

Table LXII, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 3 for Experimental and Control Groups, Grade 5 311

Table LXIII, Grade 6 Pupils' Responses to Question One (Items 1-5) of the Pupil's Evaluation Form by Mean ($\overline{X}$) and Total Percentage for All States Combined (N=503) 317

Table LXIV, Grade 6 Pupils' Responses to Open-Ended Question Two (Items 1-6) of the Pupil's Evaluation Form by Category and Percent for All States Combined 318

Table LXV, Grade 6 Pupils' Responses to Question Three (Items 1-11) of the Pupil's Evaluation Form by Mean ($\overline{X}$) and Total Percentage for All States Combined (N=503) 320

Table LXVI, Analysis of Covariance of Scores for Total Booklets Experimental vs. Control Groups, Grade 6 322

Table LXVII, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Total Booklets for Experimental and Control Groups, Grade 6 322

Table LXVIII, Analysis of Covariance of Scores for Specific Objective 1, Experimental vs. Control Groups, Grade 6 323

Table LXIX, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 1 for Experimental and Control Groups, Grade 6 323

Table LXX, Analysis of Covariance of Scores for Specific Objective 2, Experimental vs. Control Groups, Grade 6 324

Table LXXI, Pretest and Posttest Means, Standard Deviations, for Adjusted Posttest Means on Specific Objective 2 for Experimental and Control Groups, Grade 6 325

Table LXXII, Analysis of Covariance of Scores for Specific Objective 3, Experimental vs. Control Groups, Grade 6 325

Table LXXIII, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 3 for Experimental and Control Groups, Grade 6 326

Table LXXIV, Analysis of Covariance of Scores for Specific Objective 4, Experimental vs. Control Groups, Grade 6 327

Table LXXV, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 4 for Experimental and Control Groups, Grade 6 327

Table LXXVI, Analysis of Covariance of Scores for Specific Objective 1, Experimental vs. Control Groups, Grade 6 328

Table LXXVII, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 5 for Experimental and Control Groups, Grade 6 329

Table LXXVIII, Analysis of Covariance of Scores for Specific Objective 6, Experimental vs. Control Groups, Grade 6 329

Table LXXIX, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 6 for Experimental and Control Groups, Grade 6 330

Table LXXX, Analysis of Covariance of Scores for Specific Objective 7, Experimental vs. Control Groups, Grade 6 331

Table LXXXI, Pretest and Posttest Means, Standard Deviations, and Adjusted Posttest Means on Specific Objective 7 for Experimental and Control Groups, Grade 6 331

BACKGROUND AND ACKNOWLEDGMENTS

While developing and field-testing an alcohol and traffic safety education module[1] for use in junior high school, the investigators found convincing evidence that elementary school is a formative period for future attitudes and decisions. The earlier alcohol and traffic safety education begins, the more effective it is likely to be later in combatting drunken driving and other symptoms of alcohol misuse. Thus we have developed, field-tested and evaluated the Alcohol Education and Traffic Safety Module for Elementary School, Kindergarten Through Sixth Grade.

The Module has much content about use and misuse of alcohol grounded in the child's real world and conveyed through teaching techniques of demonstrated effectiveness with the age groups involved. Presentation increases in complexity by grade, each higher grade building on the activities and information of preceding grades. There are actually seven modules, one for each grade, for children change quickly in what they can grasp and build upon. The Module is planned for five sessions at each grade level (K-6) with approximately 30 minutes per session in K-3 increasing to 45 minutes per session by grades 4-6.

We are well aware that an elementary school program by itself is unlikely to produce great and continuing impact on the kinds of serious drinking and driving problems facing children as they mature into adulthood. It is intended that the Module will be only one part of a realistic and comprehensive effort through the school years in which education about alcohol and traffic safety is presented in a variety of subjects and learning experiences. Moreover, preparing the child for wise behavior in relation to alcohol in the future is a responsibility that goes well beyond the school. Therefore we have planned the Module with due consideration to the role and contribution of the child's parents and family, and to those of selected community organizations.

---

[1] James L. Malfetti, Kenneth J. Simon, Monica M. Homer, Development of a Junior High School Module in Alcohol Education and Traffic Safety (New York: Safety Research and Education Project, Teachers College, Columbia University, 1977). 269 p.

The Module was prepared in two stages: developmental, yielding a field-testing version; and field-testing, resulting in the present version.

Developmental

The authors used their professional experiences and current literature as the basis for writing objectives and content, and for selecting teaching techniques. Objectives and content were then systematically submitted to two groups: (1) 20 theoreticians in alcohol and traffic safety education who identified and clarified objectives; and, (2) 321 experienced elementary school teachers from 35 schools in seven states who rated objectives and related content for appropriateness at particular grade levels. Results from both groups were used in creating a preliminary version of the Module and are reported more fully elsewhere.[2]

With objectives and content in place by grade level, the authors then selected, adapted or created teaching techniques appropriate for the learning and motivational characteristics of the children at each grade level. The combined program was organized as five sessions for each grade from Kindergarten through sixth, and pilot-tested at three elementary schools and one school system (with grades selected from four schools) in two states by 23 teachers and 360 pupils. Results were used to form the field-testing version of the Module.

The authors then prepared preliminary *pre/post* test batteries by writing items for each specific objective by grade level. These batteries were administered to at least 70 pupils in each grade (K-6) to determine item reliability and suitability. The best items then were chosen for the field-testing version of *pre/post* batteries.

As a result of the foregoing procedures the Module was ready for field-testing. For assistance in the developmental stage, the authors are indebted to the following persons and organizations:

Theoreticians Who Identified and Clarified Objectives

Ms. Norma Atler
Discussion Leader
Department of Drug and
Alcohol Addiction
Town of Hempstead

Mr. Lou Frani, Supervisor
Safety Education Unit
New York State Education Dept.

Dr. Gerald Globetti
Center for Alcohol and Drug Abuse
The University of Alabama

---

[2] Carole L. Donovan, "Development of Objectives and Content for a Module in Alcohol Education and Traffic Safety in the Elementary School Grades K-6" (Unpublished Doctoral Dissertation, Teachers College, Columbia University, 1980). 285 p.

Commissioner George Browne
Department of Drug and
Alcohol Addiction
Town of Hempstead

Mr. Anthony DiBenedetto, Chief
Bureau of Drug Education
New York State Education Dept.

Ms. Lena DiCicco, Director
CASPAR Alcohol Education
Program

Dr. Dennis D. Embry
Assistant Research Coordinator
Kansas Research Institute

Mr. Peter Finn
ABT Associates Incorporated

Mr. Warren Kilmer
Associate in Drug Education
Bureau of Drug Education
New York State Education Dept.

Ms. Joan Lemanczyk
Deputy Commissioner
Department of Drug and
Alcohol Addiction
Town of Hempstead

Dr. Marvin Levy, Chairperson
Department of Health Education
Temple University

Dr. Gail Milgram
Rutgers Center of
Alcohol Studies

Dr. Monica M. Homer, Chairman
Health Education Department
Adelphi University

Dr. Ann Johnson
Traffic Education Consultant
State of Michigan
Department of Education

Dr. Frank C. Kenel, Director
Traffic and Safety Department
American Automobile Association

Ms. Marilynn G. Kennell
Adjunct Assistant Professor
Health Education Department
Adelphi University

Professor Julia Pratt
Professor Emeritus of Education
Adelphi University

Dr. Judy Seixas
Alcohol Education Consultant

Mrs. Rita S. Weiss
Safety Education Consultant
Traffic Safety Department
American Automobile Association

Mr. Sam Yaksich, Jr.
Executive Director
AAA Foundation for
Traffic Safety

Teachers From the Following Schools,
Who Rated Objectives and Content

California (Northern):
Coleman F. Brown Elementary School, Modesto
C.W. Haman Elementary School, Santa Clara
Phillips Elementary School, Napa
Summerville Elementary School, Tuolumne

California (Southern):	McKevett School, Santa Paula Perie School, Perie San Cayetano School, Fillmore Sepse School, Fillmore Sunkist School, Oxnard Barbara Webster School, Santa Paula
Michigan:	High Street Elementary School, Lansing Keating Elementary School, Detroit Lansing Public Schools, Lansing Mt. Pleasant Public Schools, Mt. Pleasant Swan Creek Elementary School, Flint Warren Consolidated Schools, Warren
Minnesota:	Big Lake Elementary School, Big Lake North Branch Elementary School, North Branch
Nebraska:	Gilder Elementary School, Omana Giles Elementary School, Omaha
North Carolina:	Guilford/Greensboro School Systems Steele Creek Schools, Charlotte Thomasboro Elementary Schools, Charlotte University Park Elementary School, Charlotte Westerly Hills Elementary School, Charlotte
Ohio:	Belle Haven School, Dayton Fairview Elementary, Dayton Gettysburg Elementary, Dayton Hickorydale School, Dayton Lincoln School, Dayton Loos Elementary, Dayton Louis Troy School, Dayton Orville Wright School, Dayton Southdale Elementary, Kettering Westwood School, Dayton

AAA Administrators Who Organized Data Collection at the Above Schools

Mr. Quentin Anderson, Jr.
Public Relations Director
Carolina Motor Club

Mr. Tom Conrad
Safety Consultant
Traffic Safety Department
California State Automobile
Association

Mr. Mike Rice
Safety Director
Cornhusker Motor Club

Mr. Richard Ross
Civic Affairs/Public Relations
Manager
The Dayton Automobile Club

Mr. Jerry Basch
Supervisor of Safety Education
Auto Club of Michigan

Mr. Robert Cullen
Assistant Manager
Safety and Traffic Engineering
Auto Club of Michigan

Mr. Charles E. Davis
Safety Consultant
Public Safety Department
Automobile Club of Southern California

Mrs. Nancy Skaro
Public Relations Associate
The Minnesota State
Automobile Association

Teachers and Administers Who Pilot-Tested the Preliminary Module

New Jersey	Teaneck	Classes selected from four elementary schools: Clarissa Marrow, Huey Stumilla, Lucy Sylvato
	Rahway	*Madison School:* Ella Mae Josephson, Kathy Kohler, Susanne Reeves, Catherine Snyder
New York	Dix Hills	*Half Hollow Hills School District (Otsego Elementary School):* Brian Becker, Eileen Harrington, Coleman Lyons, Anne Meaney, Edward Reiser, Audre Robertson, Sandra Weitz, Rita Wilkow, William J. Wilson, Alfred Zappola
	Hicksville	*Our Lady of Mercy Parochial School:* Sisters Mary Joanne Deegan, Mary Beth Faber, Eileen Lawlor, Maureen McDade, and Karen Darrowski, Patricia Kenny, Joan Scott, Joanne Silko, Theresa Sinsabaugh, Mae-Agnes Van Roten, Eileen Younghans

School Systems, Administrators and Teachers Who Helped With The Pre/Post Test Batteries

Island Park Schools
Island Park, New York

Mary Fallek
Marylin Hurewitz
Patricia Killoran
Elaine Kramer
Jack McAleese
Nancy MacMurray
Dorothy Ryan
Mary Weston

Jackson Avenue School Mineola, New York	Sheldon Dumaine Mary Ellsworth Ed Farkas Charles R. Leone Ann McAndrews Enes Morello	Shirley Randall Mary Zinober
Madison School Rahway, New Jersey	Kathy Brunner Paul Corcoran Nancy Davisson Ella Mae Josephson Charlotte Lewin Dorothy McCall James Marquis Sandra Murphy Cheryl Nias Susanne Reeves Diane Shuster	Catherine Snyder John Sousa Mary Finelli (Secretary)
Teaneck Public Schools Teaneck, New Jersey	Barbara Adams Ruth Berg Sandra Broady Helen Cook Robert Costanzo Sue Griffin Robert Grodsky Theo Lacey Patricia Murphy Robert Penotti	Fern Rod Enid Rubin Patricia Schwartz Anita Smith

Field-Testing

Two hundred and ninety elementary school teachers (K-6) were trained in the use of the field-testing version of the Module at nine cities in eight states. The Module was then presented by these teachers to 3,051 pupils at 51 public and private schools representing urban, surburban and rural areas (so that the results would obtain nationally). In these same settings an additional 2,636 pupils were used for a controlled study of effectiveness.

Teachers were asked to critique the field-testing version of the Module page by page, and in terms of its major components. Moreover, through quantifiable rating scales and responses to open ended questions, they evaluated the portion of the Module implemented at their specific grade level. They also administered *pre/post* test batteries to assess pupil change in the objectives of the portion of the Module for their grade level. Finally, through scales and responses to open ended questions, pupils in grades 4-6 evaluated various aspects of the Module implemented at their respective grades. The results of these evaluations (fully reported in Appendix B) helped to form the final version of the Module. It was reassuring that the teachers and pupils found the Module practical and valuable. Results of *pre/post* testing showed significant positive change in favor of the pupils (at all grade levels) who were exposed to the Module when compared to those at the same grade level who were not.

The authors are grateful to the following persons and organizations for their cooperation in field-testing and for the hundreds of ideas, modifications and suggestions growing out of it.

1. California Chuck Davis, Automobile Club of Southern California Ken Reynolds, California State Automobile Association	Modesto	*Coleman F. Brown School:* Kathryn Berta, Maureen Donovan, Phyllis Hart, Mrs. Holsten, Steve Santos, Frances Tripp, Daniel Wood *Standiford School:* Joyce Fey, Nannette Olson, Sandy Semone *Sherwood School:* Mildred Hodges, Elaine Jackson, Mark Lewis *Stockard Coffee School:* Celia Ciari, Doria Hedberg, Nana Redell, Christine Schroeder, Gayle Thompson *Woodrow School:* Karen Hough *Sylvan School:* Terri Pierce
	Oxnard	*St. Anthony's School:* Joy Todd *Sunkist School:* Mike Preach
	Santa Paula	*Barbara Webster School:* Fimmie Sherman *McKevett School:* Teresa Reynolds *Thelma Bedell School:* Marcia Joy Udin

2.	Maine Eric Baxter, Maine Automobile Association	Cape Elizabeth	*Cape Elizabeth School:* Jeanne Malcolm, Clark B. Smith *Pond Cove School:* Leona M. Craig, P. Robinson
		Farmington	*A.D. Ingalls School:* Jeannine M. Backus, Roger Kemble *W.G. Mallett School:* M. Kathleen Knight, Leatrice Orr, Mark E. Simpson, Jeannette L. Sproul
		Livermore	*Livermore Falls Primary and Elementary Schools:* Patricia Bierce, Meredith M. D'allessandro, Erla Grace, Linda Mae D. Gramlich, Norm Lamontague, Judith Tappar
		Skowhegan	*Margaret Chase Smith School:* Tobey L. Dirkman, Elise Laney *North Elementary School:* Hildreth P. Aldrich, Bette Hardy, Mrs. Jone Jewell, Katherine C. Susi
3.	Minnesota Barbara Mittelstadt, Minnesota State Automobile Association	Pipestone	*Pipestone Schools:* Leila Brachen, Diane Christensen, Tom Clark, Martha M. Harder, Jeanine Olson, Debra Stevens, Sue Wathen, Annette Weisbeck
		Red Wing	*Sunnyside Elementary School:* Muff Allen, Gwyn Bentley, Joe Blomme, Sue Jagusch, Muriel Joseph, Donna Macaulay, Ann Harlan Nibbe, John Quist
		St. Paul	*Holy Spirit School:* Keven Hogan
4.	Nebraska Mike Rice, Cornhusker Motor Club	Omaha	*Gilder School:* Ruth Austin, Susanne Clair, Sue Van Doren, Miriam C. Reese, Lynne Richt, M. Spooner *Giles Elementary School:* Robert J. Acamo, Bettye S. Brown, Ellen A. Parker, Leslie Rowland, Judy Van Scyoc, Norma Smith *J.G. Masters School:* Marie I. Hesser, Carol McLarney, Joanne Nicolls, Audrey Schwery, Janet Smith

5.	New Jersey Katherine McKeller, New Jersey Automobile Club Paul St. Mauro, North Jersey Automobile Club	Bloomfield	*Berkeley School:* Tom Dowd, Mrs. Doris Honaman *Brookdale School:* Ruth N. Coppola, Arlene K. Carswell, Mary Helen Orr *Carteret School:* Muriel J. Collins, Carole Forbes, Jennie Hoechner *Demarest School:* La Verne Forstenhausler *Fairview School:* M. Lucariello *Franklin School:* Andrew Blaskewicz, Daniel M. Caruso, Mrs. M. Lucas
		Paterson	*St. Bonaventure School:* Margaret Donnellan, Concetta Gartiser, Mrs. Diane Gaydos, Ann M. Grady, Sr. Catherine Mary Raymond, Ann Scheiblin, Vera Schemly, Sr. Christina Schoen
6.	New York Richard F. Newhouse, Automobile Club of New York	Farmingdale	*Woodward Parkway School:* Abby Cooper, Barbara Davis, Edwin G. Davis, Jr., Jack Goldfarb, Patricia Petrucci, Helen E. Scott, Harriet Seligson
		Garden City	*Homestead Avenue School:* Anne Jean Rose *Locust School:* Anna Lea Smith *Stratford Avenue School:* J.P. Russell
		Levittown	*Wisdom Lane Elementary School:* D. Dolan, A. Glaser, N. Greenblatt, Joan M. Heide, Marsha Meltzer, Gloria Miller, Francis X. O'Connor, Selma Willner
		Syosset	*Walt Whitman School:* Fran Friedland, Roberta Friedman, Mary Ann Marriott, May Pellegrino, Betty Scheim, Estella Squeri, Serra Zinn
7.	Ohio Jim Holland, Miami Valley Automobile Club	Dayton	*Jackson Elementary School:* Lorean T. Brown, Marjorie Hathcock, Coleen McCray, Susan Slawson, Rosa Lee Turpeir, Barbara A. Watson
		Englewood	*Northmont and O.R. Edgington Schools:* Nancy Lou Cox, Donald Graef, Jan Gueth, Mrs. Mary Harris
		Kettering	*Southdale Elementary School:* Nancy Achoi, Nancy Eresman, Mary Lou Heckman, Carolus H. Schneider, Carl R. Stiles, Kris Thurman

7.	(Ohio continued)	Phillipsburg	*Phillipsburg Elementary School:* Sondra Elliott
		Union	*Union Elementary School:* Mark J. Stoch, Sue Wampler
8.	Vermont Tom Kinley, Automobile Club of Vermont John L. Harvey, State Department of Education Michele Forman, State Department of Education	Bennington	*Catamount Elementary School:* Carey Alton, Vincent J. Guerino, Gail Harwood, William A. Johnson, Barbara Vigsnes, Ann S. White, Patricia Woodward
		Hinesburg	*Hinesburg Elementary School:* Jean Benson, Michael C. Bonavita, Debbie Cross, Deborah Pyle, Debra A. Runge, Nancy Talbot, Emily Tyl
		Middlebury	*College Street School* and *Mary Hogan Elementary School:* Margaret Collins, Lou DiMasi, Ardys C. Fisher, Marian Lee, Janetta Mohler, Helen P. Murray, Michael Paretti

9. The 7,000 elementary school pupils at the pilot-testing and the field-testing sites for their participation, enthusiasm and honesty in helping to make the Module more valuable for those who will follow them.

Other Acknowledgments

In addition, the authors wish to express their gratitude to:

The AAA Foundation for Traffic Safety which funded all aspects of development and field-testing of the Module.

Sam Yaksich, Jr., Executive Director of the Foundation, for his guidance and support in all phases of the development of the Module and particularly for his part in training teachers at the field-testing sites.

Dr. Richard Lindeman, Steven Schneider and Linda Stampoulos for their guidance and involvement in the many facets of evaluation of the Module.

Clifford C. Nelson for his critique of the manuscript.

Marilyn Breeze for her part in organizing and preparing the manuscript.

C.L.D.
E.P.H.
M.M.H.
M.G.K.
J.L.M.

INTRODUCTION

To understand the need for alcohol and traffic safety education in elementary schools, the reader should recognize that most children have personal or vicarious experience with alcohol before seventh grade, and that elementary school is a formative period for future attitudes and decisions about drinking. It should also be understood that there is really not much choice about whether to prepare our children for decisions about drinking, for they are born into a drinking society. We drink alcoholic beverages many times, at many places, for many reasons, and if a child is not exposed to drinking situations in real life, he soon finds out through the media.

It would seem therefore that elementary school is a good place to begin to lay a foundation for rational approaches to the numerous social drinking situations that children are made aware of on the path to adulthood. Some of these can be quite hazardous for those involved, and for some drinkers the consequences are severe. A look at the situations and consequences by age group should provide additional perspective for our elementary school approach.

Drinking Problems of Adults

The majority of adults drink at least occasionally, and most do so without incident. However, an estimated 10 million have serious drinking problems with subsequent health and social implications.[1] Excessive use of alcohol contributes to heart disease, cancer and liver disorders--and to a life expectancy shortened by 10 to 15 years. High consumption during pregnancy has been associated with a variety of fetal anomalies. Moreover, heavy drinking plays a prominent role in accidents, crime, suicide, marital violence and child abuse. Annually, approximately 200,000 people experience untimely deaths related to misuse of alcohol; hundreds of thousands more suffer serious illness or injury.[2]

Particularly alarming is the number of traffic fatalities associated with drinking problems. There are about 50,000 motor vehicle dealths each year,[3] and alcohol is a factor in approximately half.[4,5] In addition, it is estimated that drinking is involved in one-third of the annual two million and more disabling traffic injuries.[6] To deal with this aspect of drinking problems we have developed and implemented rehabilitative programs to deter convicted survivors from repeating alcohol-related traffic offenses, and to encourage them to seek treatment if their problem with alcohol is pervasive.[1] However, there is no second chance for the dead and the maimed, and it is clear that steps should be taken to head off these tragedies before they can occur. Teenagers are one group to focus on.

---

[1] U.S. Department of Health, Education, and Welfare, Public Health Service, Alcohol and Health, Third Special Report to the U.S. Congress from the Secretary of Health, Education, and Welfare (Washington, D.C.: DHEW, 1978), p. xix.

[2] Ibid., pp. xii, xix.

[3] National Safety Council, Accident Facts, 1979 ed. (Chicago: The Council, 1979), p. 6.

[4] Ibid., p. 52.

[5] Alcohol and Health, Third Special Report, p. xv.

[6] Ibid.

Drinking Problems of Teenagers

Not only are most teenagers drinking, but alcohol consumption is more than incidental for a sizable fraction of them. A national survey[2] of teenagers shows that: (1) 19 percent drink once a week, 26 percent drink twice a week or more; (2) 61 percent have been *drunk* once or more during the past month; (3) on the days they drink, 39 percent have one to three drinks, 29 percent four to eight, and 14 percent nine or more. Further, a survey of the alcohol habits of 9,500 urban junior and senior high school students identified 12% of the respondents as "high risk" on the basis of such criteria as: drinking five or more drinks at one sitting, more than once a week; experiencing blackouts or passing out; drinking because they wanted to get drunk; drinking before or while in school.[3] The National Institute on Alcohol Abuse and Alcoholism estimates there are nearly 3.3 million problem drinkers among junior and senior high school students.[1]

---

[1] Ernest I. Stewart and James L. Malfetti, Rehabilitation of the Drunken Driver (New York: Teachers College Press, Teachers College, Columbia University, 1971). 269 p.

[2] A Strategic Study for Communications Programs on Alcohol and Highway Safety: High School Study (n.p.: Grey Marketing & Research Department for the Office of Pedestrian and Driver Programs, National Highway Traffic Safety Administration, U.S. Department of Transportation, 1974).

[3] Gilbert M. Shimmel et al., "Emerging Trends of Alcohol Use and Abuse Among Urban Youth," Study by the New York State Department of Mental Health and Hygiene. (New York City Board of Education, Hunter College, June 1974), mimeographed.

One aspect of teenage living of special concern to the authors is drunk driving. It is becoming increasingly serious. Between 1960 and 1973, arrests for driving while intoxicated increased by more than 400% for persons under 18.[2] Teenagers are disproportionately involved in alcohol-related traffic fatalities. In one state 43 percent of the drinking drivers killed were 16 to 24 years old, but only 24 percent of the state's drivers were in that age group.[3] James B. Gregory, while Administrator of the National Highway Traffic Safety Administration, stated:

> There is an alarming amount of drinking and driving taking place among a mainstream of American youth. In fact, high school students are involved in unsupervised social drinking situations almost as often as adults are today--half of them drink regularly, many get drunk and drive when drunk. Tragically, drunk driving is the number one killer of young people.[4]

With these conditions in mind we devised and tested a mini-course[5] for use in high school driver education programs, emphasizing the influence of alcohol on driving skills. We also capitalized on the inherent interest of teenagers in driving to communicate the total influence of alcohol on human functions, and to discuss measures to preclude tragic misuse. However, even as we were field-testing our mini-course, it became apparent that for some it might come too late. For example, drinking patterns that might lead to drunken driving are being formed as early as the 7th or 8th grade, with such imprint that little can be done about them later on.

---

[1] "The Latest Teen Drug," Newsweek, January 8, 1979, p. 43.

[2] United States Federal Bureau of Investigation, Uniform Crime Reports for the United States, 1973 (Washington, D.C.: Government Printing Office, 1974), p. 2.

[3] "Youth Ranks High Among Drinking Drivers," Traffic Safety, (June 1970):8.

[4] Cross Roads, New York State Traffic Safety Council, 15, 6 (November-December 1975):1.

[5] James L. Malfetti, Esther A. McGrath and Angelo G. DeMeo, Instructor's Manual, DWI Mini-Course for High School Driver Education Programs (New York: Safety Research and Education Project, Teachers College, Columbia University, 1975). 243 p.

Drinking Problems of Junior High School Students

Drinking habits are formed earlier than suspected. A national survey indicated that more than half of the nation's seventh graders had tried drinking at least once during the previous year. Beer drinking once a week was reported by 10 percent of seventh grade boys.[1] The survey also revealed that the year between ages 13 and 14 appears to mark a point at which many youngsters decide to drink[2]--and an important point for intervention and guidance, as confirmed by another national survey of 7th to 12th graders. In this latter survey, teenage drinkers and teenage problem drinkers steadily increased with each subsequent grade. Most significant was the rise in problem drinking between 7th and 8th grades for boys and between 8th and 9th grades for girls (from 5.0 to 15.6 percent and from 9.1 to 16.2 percent respectively).[1]

---

[1] "Young People and Alcohol," Alcohol Health and Research World, Summer 1975, DHEW Publication no. (ADM) 75-157, p. 3.

[2] National Institute on Alcohol Abuse and Alcoholism, "Drinking Motivations and Habits of Youth Illuminated by National Survey Results," NIAA Information and Feature Service no. 18 (November 26, 1975), p. 4.

Seventh and eighth graders are at the point of leaving childhood and reaching toward adulthood. While still subject to adult guidance, they are seeking their own identity and behavioral standards. Two big areas in this quest are drinking and driving. At the same time they may be experimenting with alcohol, they are looking forward to a driver's license. In view of this we developed and implemented a module[2] that took advantage of their avid interest in driving to acquaint them with the nature of alcohol abuse, its tragedies and ways to deal with them. The module is relevant to the drinking and driving situations probable for 7th and 8th graders, and emphasizes participatory teaching techniques and decision-making procedures appropriate for this age group. But for some, serious drinking problems begin even earlier.

Drinking Problems of Children

Accounts of preadolescent alcohol abuse are mounting. United States Department of Justice statistics for 1976 indicate that 9,679 youths under the age of 15 were arrested in liquor law violations and 271 of the children were 10 years of age or younger. A total of 240 children, 10 or younger, were charged with drunkenness, and 50 were charged with driving under the influence.[1]

---

[1] Alcohol and Health, Third Special Report, p. 17.

[2] James L. Malfetti, Kenneth J. Simon and Monica M. Homer, Development of a Junior High School Module in Alcohol Education and Traffic Safety (New York: Safety Research and Education Project, Teachers College, Columbia University, 1977). 269 p.

Reports of alcohol use by preadolescents are not restricted to a particular area of the nation. In Texas, the commissioner of alcoholism commented that he knew of some 10 to 12 year olds who had been drinking for at least a year.[2] In Virginia, the Department of Education reported that the number of grade schools with alcohol problems increased from 15 during 1971-72 to 171 during 1975-76; the state supervisor of drug education attributed the problem to fifth and sixth graders who had access to alcohol at home.[3] Another study conducted for the Department of Health, Education and Welfare in unidentified West Coast schools, indicated that 45 percent of fourth, fifth and sixth graders considered themselves to be alcohol users; eight percent of the youngsters said that they drank at least once a week.[4]

For most children, socialization into alcohol use begins in the home, at an early age (frequently before the twelfth year[1]) and under parental guidance.[2,3] For other young children "experimenting" with alcohol in the home (drinking leftovers prepared for adults) occurs without parental knowledge. As age increases, however, more drinking occurs away from home and without adult supervision, and this is when problems are more likely to emerge. In these new circumstances, some important variations may exist in reference to the purpose of drinking, types and quantities of beverages consumed, and controls available for regulating drinking behavior.[4]

---

[1] United States Department of Justice. Uniform Crime Reports for the United States, 1976 (Washington, D.C.: Government Printing Office, 1977), p. 181.

[2] "A State Cracks Down on Teen-age Drinking," U.S. News and World Report, September 18, 1978, p. 64.

[3] "Alcohol Use Soars in Virginia Grade Schools Survey," The Washington Star, September 30, 1977, p. A-4.

[4] "Study Finds 4th-Graders Drink," The Washington Post, March 25, 1977.

Need for an Elementary School Module

From the preceding excursion through the impact of alcohol on different age groups, it is apparent that drinking problems can and do appear from childhood through adulthood. There are several places for gainful intervention, but the elementary grades are the place to start.[1,2,3] Although children actually learn something about alcohol before entering school, it is during the years from six to ten that they form a heightened concept of alcohol and when attitudes toward alcohol and drinking gradually develop.[4] What learning occurs after age ten is best built on earlier positive attitudes.[5]

---

[1] Howard T. Blane and Linda E. Hewitt, Alcohol and Youth: An Analysis of the Literature 1960-75 (University of Pittsburgh prepared for NIAA by U.S. Department of Commerce, National Technical Information Service, March 1977), p. V-14.

[2] Danny E. Harrison, Walter H. Bennett and Gerald Globetti, "Factors Related to Alcohol Use Among Pre-Adolescents," Journal of Alcohol Education 16 (Winter, 1970), p. 9.

[3] Ira Cisin, "Formal and Informal Social Controls over Drinking," in Drinking Alcohol in American Society: Issues and Current Research, eds. J.A. Ewing and B.A. Rouse (Chicago: Nelson-Hall, 1978), p. 154.

[4] B. Stacey and J. Davies, "Drinking Behavior in Childhood and Adolescence: An Evaluative Review," British Journal of Addiction 65 (1970):208-9.

Early drinking behavior has been shown to predict future drinking habits.[6] Young people need to have a sound foundation on which to base their decisions about drinking practices and social responsibilities. Although early knowledge about alcohol will not eliminate its misuse, adequate information, appropriately presented, improves prospects.[7]

ALCOHOL EDUCATION AND TRAFFIC SAFETY MODULE, KINDERGARTEN THROUGH SIXTH GRADE (K-6)

Acting on the belief that the earlier something is begun to prevent drinking and driving problems the more effective those steps are likely

---

[1] Ray Yimes, "Pupils taught early about effects of drugs," The Pennsylvania Issue, Quarterly Edition (Fall 1976):85.

[2] Jean B. Leifheit, Drug Abuse: It's Up To You, ed. Joseph D'Elia (New York: Cebco Standard Publishing, 1974), pp. 58-59.

[3] Peter Finn, Alcohol: You Can Help Your Kids Cope (New York: The National Council on Alcoholism, Inc., 1978), p. 4.

[4] Gustav Johoda and Joyce Cramond, Children and Alcohol: A Developmental Study in Glasgow, Vol. 1 (London: Her Majesty's Stationery Office, 1972), p. 31.

[5] Robert Zucker, "Developmental Aspects of Drinking Through the Young Adult Years," Michigan State University--to be published in Youth, Alcohol and Social Policy, eds. M. Chavetz and H.T. Blane (New York: Plenum Press). (copy)

[6] Alcohol and Health, Third Special Report, p. xi.

[7] Morris Barrett, Health Education Guide: A Design for Teaching K-12 (Wynewood, PA: Health Education Associates, Ltd., 1971), p. 29.

to be, the authors have developed a series of integrated learning experiences in the form of a Module for elementary school (K-6). In essence, the Module addresses the drinking dilemma described in a health education periodical for fourth through seventh graders:

> Although we are a drinking society, there are some very mixed feelings about drinking. Sometimes it is thought to be good, sometimes bad. Some people can handle drinks, others run into great problems.
>
> These mixed messages can be very confusing for someone who is trying to decide whether or not to drink, or is learning how to handle alcohol.
>
> Often the facts about alcohol get lost in all the confusion, when what is really needed is a hard, clear look at the facts. Knowing about alcohol and what it does can help you make up your mind whether you will drink one day, and if so, how.[1]

Thus, the Module has a good deal of content about use and misuse of alcohol. It provides opportunities to explore attitudes related to drinking, and practice in responding to alcohol-related situations likely in the years ahead. The presentation increases in complexity by grade, each building on the activities and information of previous grades.

Objectives, content and techniques for the Module were chosen with the learning characteristics and abilities of children in each of the grades (K-6) in mind. There are actually seven modules, one for each grade level, for children change quickly in what they can grasp and build upon.

Classroom activities are grounded in the child's real world to insure personal and social relevance. Participatory teaching techniques of demonstrated effectiveness with this age group are emphasized, especially those which build fun into learning, on the theory that one learns better what one enjoys doing.

---

[1] "Alcohol: How Does It Stack Up?," Current Health (December, 1978), p. 4.

The premise for the Module is that children will be better prepared for alcohol-related decisions if they have:

-- knowledge of the influence of alcohol on the body and mind, and of the potentially serious consequences of alcohol abuse;

-- been encouraged to explore their attitudes about the consumption of alcoholic beverages and related matters;

-- had practice in planning and acting out ahead of time the ways to cope with or avoid alcohol-related situations dangerous for themselves and others.

The Module is planned for five sessions at each grade level (K-6) with approximately 30 minutes per session in Kindergarten through third grade (a total of 150 minutes for five sessions), increasing to 45 minutes per session for grades four through six (a total of 225 minutes for five sessions).

The authors are well aware that an elementary school module by itself is not capable of great and continuing impact on the kinds of serious drinking and driving problems that might occur later on. It is intended that the Module will be only one part of a realistic and comprehensive program throughout the elementary school years in which education about alcohol is presented in a variety of subject areas and learning experiences. Moreover, it is expected that educational programs at junior and senior high school levels, like those described earlier, will provide continuing positive reinforcement. Finally, furnishing accurate information and motivation for wise use of alcohol is an obligation that does not rest solely with the schools. Parent and peer influences are among the most significant determining factors of drinking patterns.[1,2,3] The authors have therefore planned the Module with due consideration to the role and contribution of significant others. The Module went through two stages--developmental and field-testing--to yield the present version.

Developmental

In preparing the preliminary Module the authors made use of their own professional experience and appropriate current literature as the basis for writing objectives and content and for selecting teaching techniques. Special attention was given to the learning characteristics and capacities of the child progressing from Kindergarten through Grade Six.

For clarification, expansion or deletion, objectives and content were then systematically[4] submitted to 20 recognized theoreticians in curriculum development and alcohol education. Further, 321 experienced

---

[1] W. Mandell & H.M. Ginzburg, "Youthful Alcohol Use, Abuse, and Alcoholism," in The Biology of Alcoholism: Social Aspects of Alcoholism, Vol. 4, eds. B. Kissin & H. Begleiter (New York: Plenum Press, 1976), pp. 174-177.

[2] J.V. Williams, et al., A national study of adolescent drinking behavior, attitudes and correlates, prepared for National Institute on Alcohol Abuse and Alcoholism, 159 pp. + appendices (Springfield, Va.: U.S. National Technical Information Service, 1975), pp. 149-150.

[3] Robert Zucker, "Developmental Aspects of Drinking Through the Young Adult Years," in Youth, Alcohol and Social Policy, eds. M. Chavetz & H.T. Blane (to be published) (New York: Plenum Press), p. 28. (xerox copy)

[4] Harold A. Linstone and Murray Turoff, The Delphi Method (Reading, Massachusetts: Addison-Wesley Publishing Company, 1974), pp. 3-5.

elementary school teachers representing K through 6, from 35 schools in seven states, rated the objectives and content for appropriateness and adequacy for their respective grades.

After analysis and adaptation of these additional inputs, the preliminary Module was given a trial run at three elementary schools and one school system (with grades selected from four schools) in two states by 23 teachers and 360 pupils. Responses and comments from teachers and pupils were recorded as were the observations of the authors. In addition, test batteries to measure change in terms of objectives were administered to at least 70 pupils in each grade (K-6) to determine the practicality of the instruments, and to provide item data for traditional analysis. Results of the foregoing procedures helped to form the field-testing Module and related evaluation forms and test batteries.

Field-Testing

Two hundred and ninety elementary school teachers (K-6) were trained in the use of the field-testing version of the Module at nine cities in eight states. The Module was then presented by these teachers to 3,051 pupils at 51 public schools in urban, suburban and rural settings so that the results would be broadly applicable. In these same settings an additional 2,636 pupils were used for a controlled study of effectiveness.

The purpose of field-testing was to see if the Module was practical and effective, and to gather information and data to remedy any shortcomings. Teachers were asked to critique the entire Module page by page and in terms of its major components. Further, through rating scales and responses to open-ended questions, teachers and pupils (only those in grades 4-6) evaluated the portion of the Module presented at their specific grade level. The teachers also administered *pre/post* test batteries to measure pupil change in terms of the objectives for their respective grades.

Evaluation results were examined for clues and suggestions for transforming the field-testing version of the Module into the present version. While many were made, the more important are summarized in Appendix B for the overall Module as well as for each grade, K-6.

Moreover, it was reassuring to learn that teachers and pupils found the Module practical and very valuable, and that pre/post test results showed significant positive change in favor of the pupils (at all grade levels) who were exposed to the Module when compared to those at the same grade level who were not.

Goal and Objectives

The goal of the Module is to help to prepare pupils to make choices in alcohol-related situations, so that when they reach the age for these decisions, they will choose in the direction of the safety and well-being of themselves and others. To accomplish this, we set forth seven general objectives (Roman numerals) sub-divided into twenty-four specific objectives (Arabic numerals) to be achieved by the end of Grade Six.

Grade		
	I	Pupils will display knowledge of the nature of beverage alcohol.
		They will be able to identify:
K	1.	commonly used beverages as alcoholic or nonalcoholic.
First	2.	alcohol as a drug.
	II	Pupils will display knowledge of the influence of alcohol on functions of the body and mind.
		They will be able to identify:
Second	3.	the effects of alcohol on judgment.
Second	4.	the effects of alcohol on the performance of physical tasks and activities.
Second	5.	the effects of alcohol on vision.
Fifth	6.	the general reaction of the body and mind to alcohol in combination with other drugs.
	III	Pupils will display knowledge of the influence of alcohol on behavior.
		They will be able to identify:
First	7.	noticeable effects of alcohol on behavior.
Second	8.	risk situations in which drinking is not safe.
Third	9.	the influence of alcohol on risk-taking behavior.
Third	10.	relationships between traffic accidents and alcohol consumption.
Third	11.	the influence of alcohol on coordination.
Fifth	12.	reasons for variations of the influence of alcohol on differant individuals under different conditions.
Sixth	13.	reasons young people have a special drinking and driving problem.

Grade

IV Pupils will display knowledge of the major sources of pressure to drink.

They will be able to identify:

Fourth 14. the influence of peers on drinking behavior.

Fourth 15. the influence of adult role models on drinking behavior.

V Pupils will identify the variety of reasons that people give for drinking, and substitute actions to achieve some of the same ends without drinking.

They will be able to identify:

Fourth 16. ways of achieving personal satisfaction without drinking.

Fourth 17. appropriate or inappropriate actions that show respect, or lack of it, for a person's decision not to drink.

Fifth 18. risks and rewards people perceive in drinking.

VI Pupils will demonstrate skill in coping with alcohol-related traffic safety problems.

They will be able to identify:

Sixth 19. the effects of drinking on driving and pedestrian skills.

Sixth 20. ways to deal with potentially hazardous drinking and driving situations.

VII Pupils will display knowledge of the signs and symptoms of alcohol abuse and of related problems and interventions.

They will be able to identify:

Sixth 21. signs of alcohol abuse.

Sixth 22. ways the abuse of alcohol might affect an individual's ability to carry out personal, family and community responsibilities.

Grade		
Sixth	23.	alcoholism as a treatable condition.
Sixth	24.	community resources available to help with drinking problems.

Evaluation

As said earlier, evaluation of the field-testing version of the Module was based on the responses of pupils and teachers to open-ended questions and rating scales and on the results of *pre/post test* batteries administered in a controlled study with 5,687 pupils at 51 elementary schools in eight states. Responses and results are reported fully in Appendix B in one of two categories: those which apply to the entire K-6 Module, or those specific to each of the seven grades.

A total of 125 teachers from all grade levels responded as requested. In addition to completing the rating scales, they provided hundreds of modifications, comments and suggestions, considerable of which were editorial, while others led to major changes. The teachers were highly supportive of the need for the Module, impressed by its organization and techniques, and with its practicality, value and potential for doing something about the problems to which it is addressed.

The teachers were asked to provide ratings on a five-point scale having values of 1 through 5, with 1 representing the most negative rating, and 5 the most positive, and the others directionally somewhere in between. Of nine items that applied for teachers at all grade levels, the lowest mean is 4.15, the highest 4.79. The mean for the scale representing overall value of the Module is 4.76; that for relevance of objectives is 4.66. In response to a three option, forced choice question of whether they thought the Module would be an influence on the behavior (when the time came) of their respective pupils, five teachers responded "Not a bit," 70 "probably" and 49 "definitely." These and other data suggest that teachers perceive the Module very positively in all of its aspects.

Pupils in grades 4-6 made their own evaluation of the Module through open-ended questions and rating scales, but their responses were specific by grade level. Across all grades, the most frequently recorded open-ended responses suggested that the pupils learned a lot about alcohol, had fun doing it, and that the most important thing they learned was not to drink and drive. The means on scales similar to those used by teachers were uniformly high--from 4.42 at fourth grade for "I learned things that will do some good," to 4.50 at fifth grade and 4.37 at sixth.

Pre-post test batteries were organized as test booklets, specific to each grade level, with at least five items to measure change in each of the 24 specific objectives listed on pages 14-17. Data were analyzed using an anlysis of covariance with the treatment (Module) as the co-variate. Pre-post test mean scores (and posttest adjusted means) were computed for experimental and control pupils, for the total of test booklets and for each specific objective, for each grade level, by state and for all states combined. Significance was determined by the F ratio.

Analysis by total test booklets, showed significant positive change in favor of pupils at all grade levels (Table X , page 238) who were exposed to the Module when compared to those at the same level who were not ($p < .05$ for K, .01 for fourth grade, and .001 for the remainder). When data on specific objectives (Table XI, page 239) were analyzed, significant differences at or below the 5% level in favor of the experimental group were obtained on 18 of the 24 specific objectives. For six objectives there was no significant difference (but one came in at $p < .10$) between experimental and control groups (and the heaviest concentration of these was in fourth grade).

Examination of the results of evaluations by pupils, teachers and *pre/post test* batteries resulted in numerous changes from the field-testing version to the present version. Details for these changes can be found in the grade-by-grade evaluations in Appendix B. The changes that applied more generally are summarized on page 333.

While the results of the evaluation described already seem highly favorable, the authors hope that the Module will have even more impact when pupils can begin in K and go through sixth, grade by grade. The cumulative effect should be greater than that demonstrated by grade level.

This seems a good point to repeat that the Module really is seven Modules, one for each grade. As the reader can imagine, developing test batteries and collecting and analyzing data for each grade level produced awesome quantities of data and printouts, which, however valuable, could not be included under one cover. Therefore, Appendix C briefly describes data presently stored at the Safety Research & Education Project at Teachers College, that might be of interest to some professionals.

Section II of Appendix B contains the field-testing versions of test batteries for each grade, including instructions for administration and scoring and other relevant information. The authors have provided data and comments valuable for modifying these batteries for future administration, if the field-testing versions do not seem satisfactory.

Organization by Grade Level

There are five lessons at each grade (K-6). Preceding the lessons for each grade are Objectives, Content, Teaching Techniques and Materials Needed for the five lessons as a whole.

Objectives identifies the specific objectives for the five lessons at that grade level. Content provides the teacher with an overview of the content likely to be covered. Teaching Techniques gives a brief description of all the techniques to be used, and Materials Needed lists whatever will be necessary for implementing the techniques in all lessons.

Each lesson is presented under the headings Purpose or Objective (or both), Materials Needed, Approximate Time, Description and Summary Statement, followed by teachers' and pupils' copies of the materials to be used in the lesson.

Purpose is used instead of Objectives where the techniques do not deal directly with a specific objective so much as they review or lead into or contribute to a base for those objectives in other lessons. Objective is used in those cases in which techniques are directly related to a specific objective. Both Purpose and Objective are used when some techniques contribute directly and others indirectly. Materials Needed describes the materials to be used in that lesson, and Approximate Time indicates how long the presentation should take. Description gives details for conducting and getting the most out of the techniques. Summary Statement is an opportunity for the teacher to relate the results of the applied techniques back to Purpose and/or Objective.

It should be emphasized that the Module is a guide for teachers and occasionally may have to be adapted to fit local circumstances. For example, while the authors carefully screened and deliberately chose the films included, some of them may not be available. In such cases, other available films may serve close to the same purpose. To assist with appropriate substitutions, where necessary, soundtracks have been included for all films presently part of the Module.

The gaming activities of the Module can be expanded or contracted to conform to time available and value and interest to pupils. Time spent can be controlled by selecting a set number of questions from those available, stipulating a specific number of rounds, or setting a definite time limit. Where the games are competitive, however, it is important that each individual or team has an equal chance to score points.

Vocabulary may also need adapting. Soda in one region may be "pop" or tonic in another. By reading lessons and related materials in advance, teachers can predetermine those words that may be unfamiliar to their pupils and plan to use appropriate substitutes or definitions.

KINDERGARTEN

Objective

Pupils will be able to identify commonly used beverages as alcoholic or nonalcoholic.

Content

There are many kinds of beverages which people may choose to drink. Some may be used daily while others are reserved for special occasions. Some are served to children and adults; others to adults only. Certain beverages are more healthful than others, although too much of anything is not good, and can make one ill. Because of their nutritional value, milk and juice are usually better choices than soda (sometimes called pop or tonic), coffee or beer.

Beverages can be alike or different in many ways. We can compare them on the basis of color, taste, smell and what they contain. Beer, wine and whiskey contain a substance called alcohol; this makes them different from milk, juice, cola, Kool Aid, coffee and tea, which do not contain alcohol. Therefore we classify beer, wine and whiskey as alcoholic beverages and the others as nonalcoholic.

Teaching Techniques

1. *My Shadow* -- Pairs of pupils outline each other's body forms to create a shadow.

2. *I'm a Special Me* -- On their individual shadows pupils draw what makes them special.

3. *What Makes Me Healthy?* -- From a group of food, beverage and other items, pupils select and color those they themselves use. Selected items are then cut out and pasted on their respective shadows, and the class discusses why particular items do or do not contribute to one's health.

4. *Which of These Things Is Not Like the Others?* -- Pupils select three of four objects belonging to a similar category; they identify which object does not belong and discuss why. This then leads to a discussion of the beverages that contain alcohol and those that do not.

5. *Mr. and Mrs. Smith's Shadows* -- Pupils select, color, cut out and post foods and drinks which they think adults might take. This exercise is followed by discussion of some of the differences in what adults and children may eat or drink on particular occasions.

Materials Needed

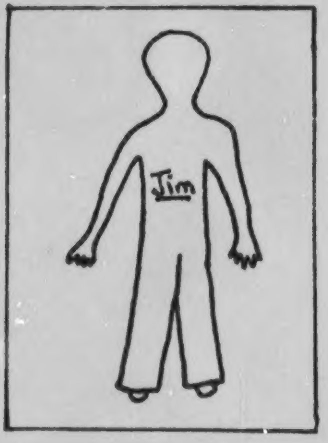
Large sheets of brown paper
Crayons
Scissors
Paste
Colored Poster Paper (one sheet)
Magic Marker
Shopping Bag
Teacher's Demonstration Copy (page 30), *Which of These Things Is Not Like the Others?*
Pictures of beer, wine and champagne (sparkling wine) for cutout (pages 33, 34, and 35)
Mr. and Mrs. Smith's Shadows made by the teacher (See sample, page 37)
Handouts: 1) *What Makes Me Healthy?* (two copies for each pupil, pages 27 and 38)
2) *Which of These Things Is Not Like the Others?* (one copy for each pupil, pages 31 and 32)

Kindergarten - Lesson I

MY SHADOW

Purpose:	To have pupils recognize the qualities that make all of them individuals.
Materials Needed:	A four foot sheet of brown paper for each child, black crayons, space for children to lie down.
Approximate Time:	30 minutes.
Description:	Pair pupils and have one pupil lie down on paper and the other pupil trace the outline of the partner's body on the large sheet of brown paper.* To save time and confusion (and if space for children is not available) the teacher may do the outline for each child, or at least for those having difficulty. Children write their names on a line across their shadow with the teacher assisting as necessary. All shadows are tacked up on classroom walls or outside in the hallway.**

MY SHADOW



Summary Statement:	"All of us are individuals because of our shapes and names, but we are also special because of how we look and what we do. Tomorrow we shall add some of these special features to our shadows."

---

*Additional time may have to be allotted for some pupils to accomplish this.

**Shadows may be appropriate displays for open house and back to school activities.

Kindergarten - Lesson II

I'M A SPECIAL ME

Purpose: To have pupils recognize the things that make each of them an individual.

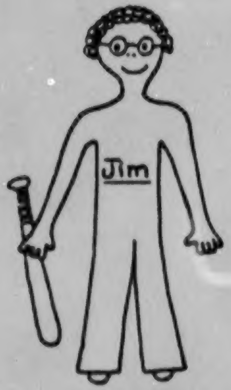
Materials Needed: Shadows from Lesson I, crayons.

Approximate Time: 30 minutes.

Description: The teacher asks pupils to think of what makes them special *(fingerprints, long hair, curly hair, eyeglasses, nice smile, being strong, sports, hobbies)* and the pupils then draw those things on their own shadows. The teacher asks, "Can anyone add to someone else's drawing anything that makes that person special?" Other pupils may make suggestions as to what makes a particular pupil special, and the particular pupil may choose to draw that addition on his/her own picture.

Summary Statement: "Now that we've all discovered the things that make us a *special me*, we should be very proud of who we are. In our next lesson we'll discuss what makes us healthy."

MY SHADOW



Kindergarten - Lesson III

WHAT MAKES ME HEALTHY?

Purpose: To make pupils aware of the kinds of food and drinks that will help them become healthy and those that will not. They will also recognize that too much of anything is not good for them.

Materials Needed: *My Shadow,* handout (see page 27) *What Makes Me Healthy?,* crayons, scissors, paste, one shopping bag.

Approximate Time: 30 minutes.

Description: The teacher reviews Lesson II to remind pupils that they are *special* and that the foods they eat, and beverages they drink help to determine how healthy they will be.

The teacher has a large shopping bag with handouts inside and tells pupils that she's been shopping. The teacher should identify each of the items on the handout before giving them to the children. Each pupil is given a handout and asked to color only the things they eat, drink or use that are good for them and make them grow and be healthy.* They are then to cut these things out and paste them on their respective shadows.

Discussion follows about foods and drinks that are good for us.**

Discussion Questions:

1) What items were not chosen to be placed on your shadow? *Coffee, wine, carrots, cigarettes.*

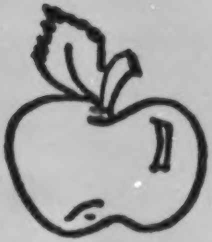
2) Why didn't you choose certain items?
Grown-ups use them. I don't like the taste.
I'm not allowed to. They're not good for you.

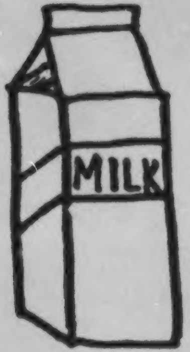
Summary Statement: "Some foods and drinks help make us to grow and be healthy, and we should choose those because they are good for us."

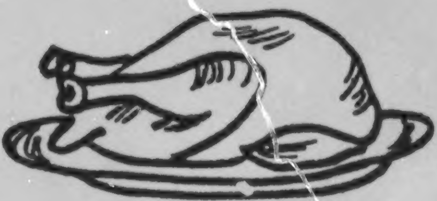
*Note: If a pupil selects an item such as wine or coffee, the teacher should ask the pupil why he or she drinks it. Other pupils may be asked to react to this choice. The teacher should be careful not to be judgmental, especially in those cases in which, for example, the use of wine may be part of special family occasions.

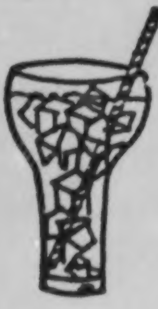
**Teacher should be prepared for questions about why some adults eat, drink or use certain substances that children should not. As there may be no single satisfactory answer, the teacher should think through ahead of time some possible responses.

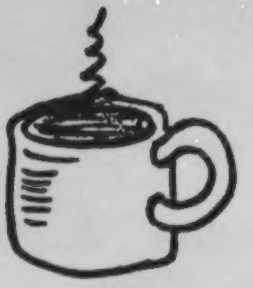
WHAT MAKES ME HEALTHY?

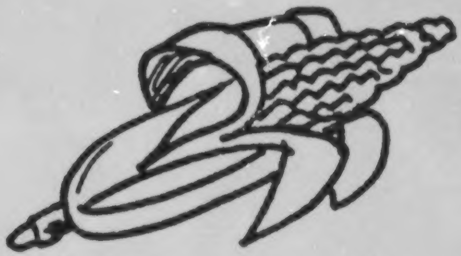


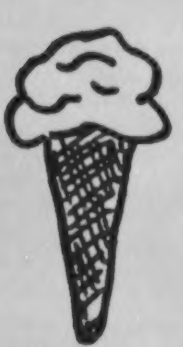


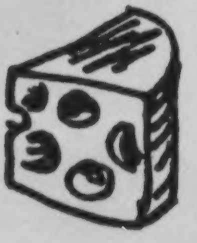


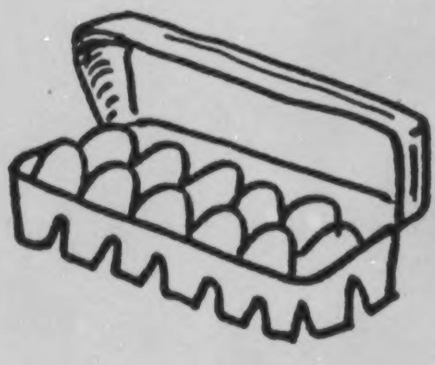


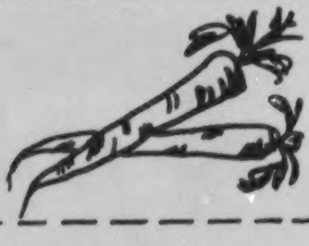


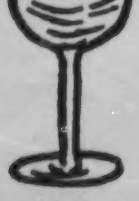


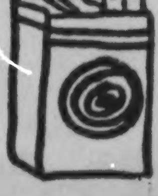


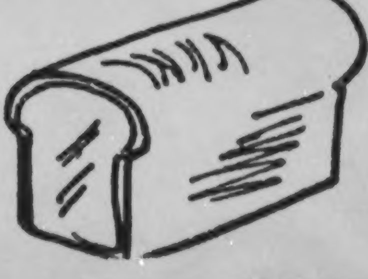












Kindergarten - Lesson IV

WHICH OF THESE THINGS IS NOT LIKE THE OTHERS?

Purpose: To have pupils learn to classify certain items into groups and to recognize the reasons another item does not belong in that classification.

Objective: Pupils will be able to identify commonly used beverages as alcoholic or nonalcoholic.

Materials Needed: Handout (pages 31-32) *Which of These Things Is Not Like the Others?*, Teacher's Demonstration Copy of handout (page 30), pictures of beer, wine, champagne (pages 33-35), crayons, one sheet of colored poster paper, magic marker.

Approximate Time: 30 minutes.

Description: This technique has been used on the TV Show Sesame Street. A short song, with everyone joining in, should precede the children's selection of each answer--"One of these things is not like the others. One of these things doesn't belong. Can you tell which one is not like the others before I finish my song?"

The Teacher's Demonstration Copy (page 30) is to be used as the example so that each child is familiar with the meaning of classification.

*Discussion Questions:

1) Which of these things is not like the others; which of these things doesn't belong?
Lollipop

2) Why?
The others you smoke, and they are not good for you.

3) Could lollipops also not be good for you?
Yes, if I eat too many.

The teacher then distributes handouts to the class, identifies each of the four items in each grouping and asks pupils to indicate the one item that does not belong in the group. All answers are accepted and discussed until the class and teacher come to a common decision about what makes the one item different. The pupils then circle that item and proceed to the next grouping.

*Note: Answers should be explored as appropriate for increased understanding.

Answers for Groupings:

Group

1) *Three are fruits; one is a fish.*
2) *Electric plug, knife and matches all could be dangerous; a toy usually is not.*
3) *Baseball, football and soccer ball are all balls; blocks are not.*
4) *Milk, soda, and apple juice are beverages that children drink; wine is not.*
5) *Bikes, tricycles and cars have wheels; boats do not.*
6) *Beer, wine and champagne (sparkling wine) contain alcohol; soda does not.*
7) *Traffic light, stop sign and school crossing sign are all traffic signals; a house is not.*
8) *Meat, fruit and vegetables are healthful for you; too much candy could make you sick.*

Discussion Questions:

1) What is an alcoholic beverage?
A drink that contains alcohol.

2) What are some alcoholic beverages that you saw in your handouts?
Beer, wine and champagne.

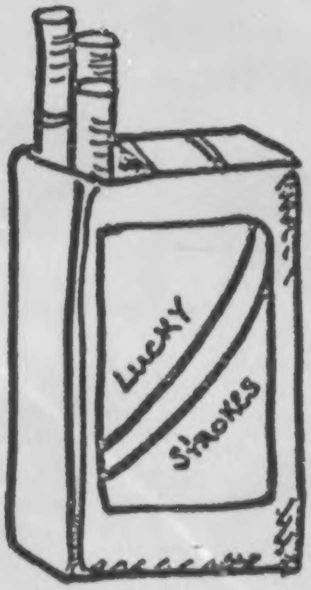
The teacher then lists (on poster paper) beverages which contain alcohol and tacks pictures of them (pages 33-35) to the list.

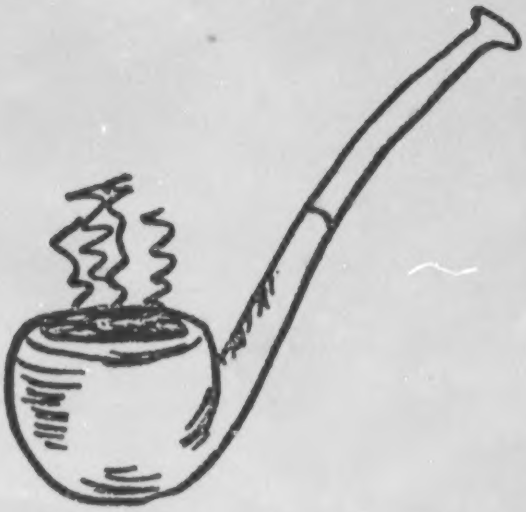
3) What can alcohol do to a person who drinks it?
It can sometimes make people act differently, and it may affect their health if they drink too much.

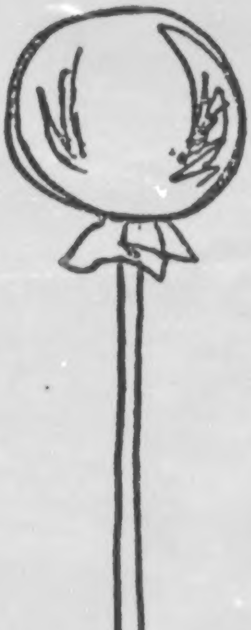
Summary Statement: "We've discovered that some objects are not like others, and we have also learned that some drinks contain alcohol--a substance that may affect health and behavior."

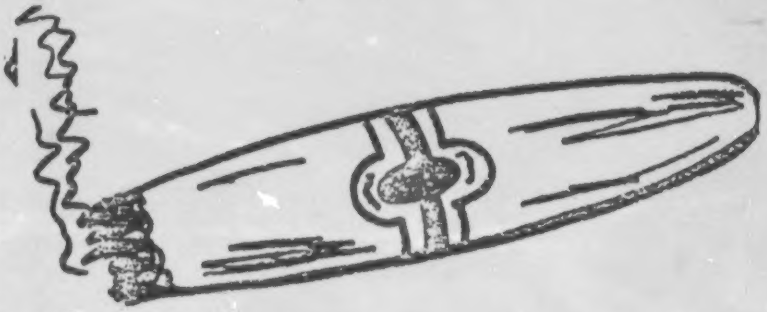
Teacher's Demonstration Copy

WHICH OF THESE THINGS IS NOT LIKE THE OTHERS?


LUCKY
STROKES



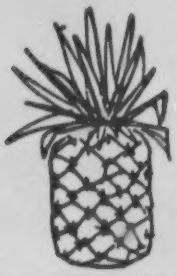
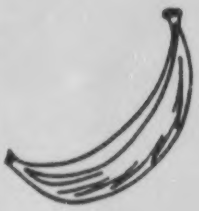
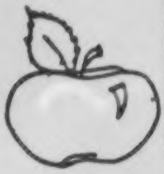
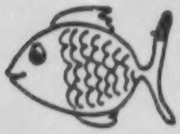




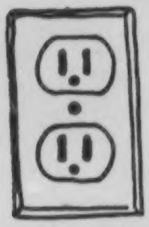
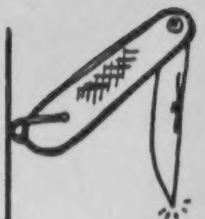
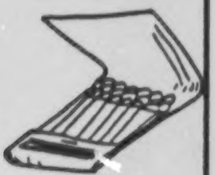
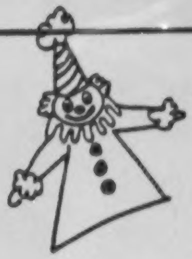
WHICH OF THESE THINGS IS NOT LIKE THE OTHERS?

Circle the object that does not belong:

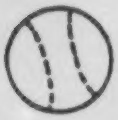
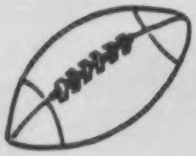
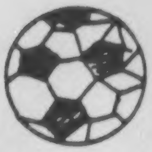
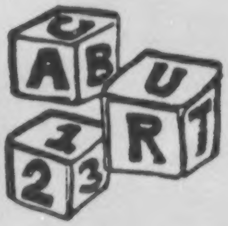
1.

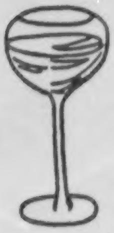
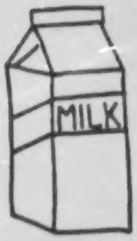
2.

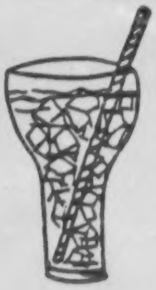
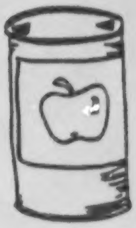





3.

4.

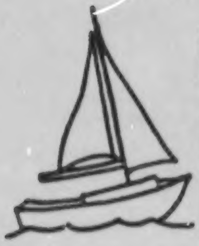



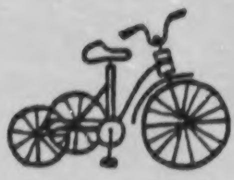



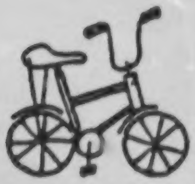
WHICH OF THESE THINGS IS NOT LIKE THE OTHERS?

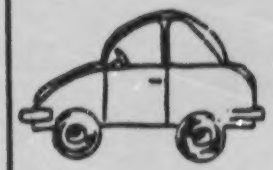
Circle the object that does not belong:

5.

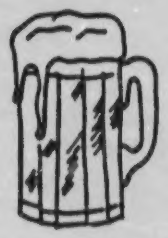


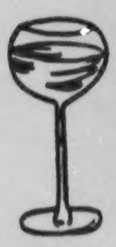


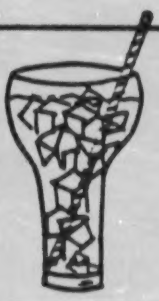


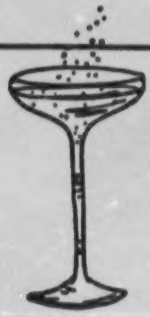


6.

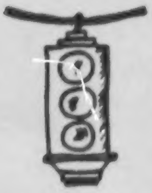


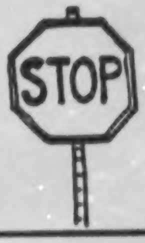


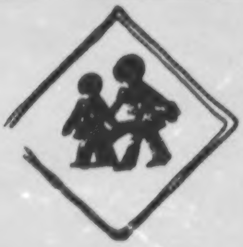


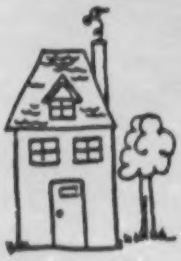


7.

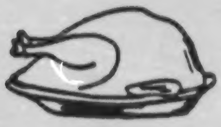


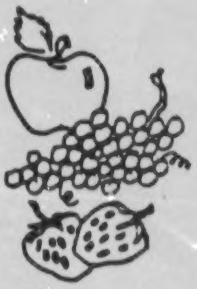


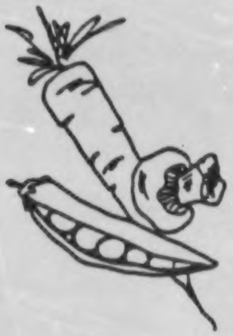


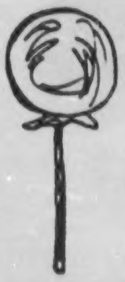


8.

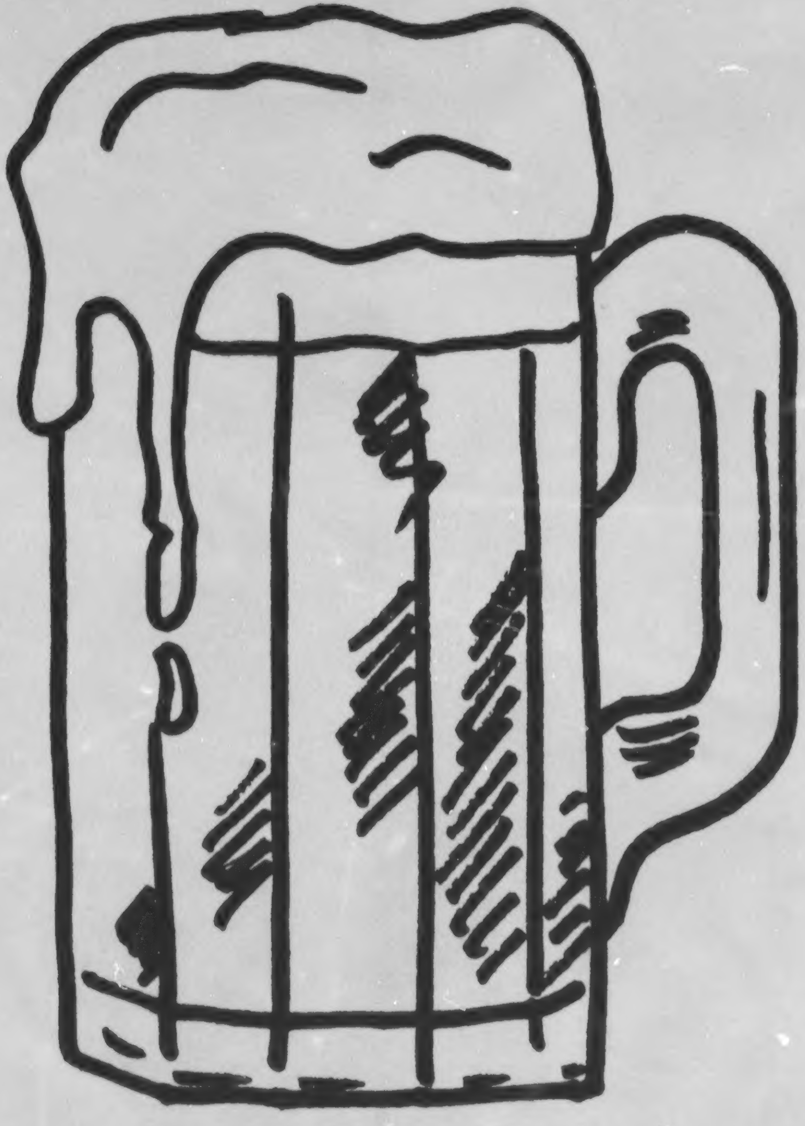




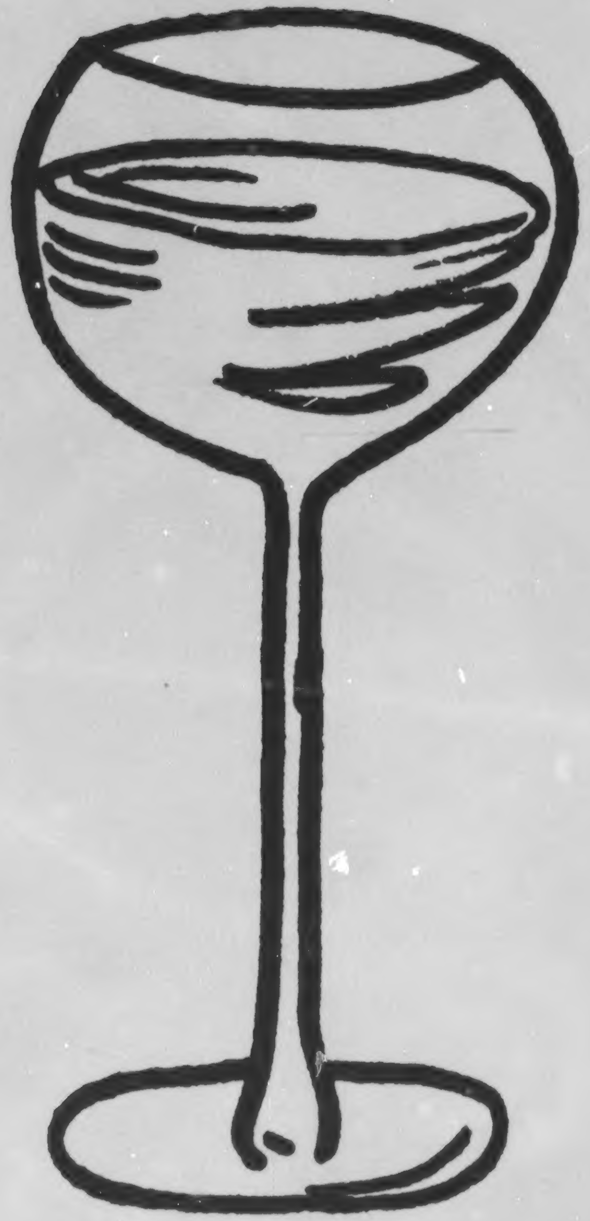




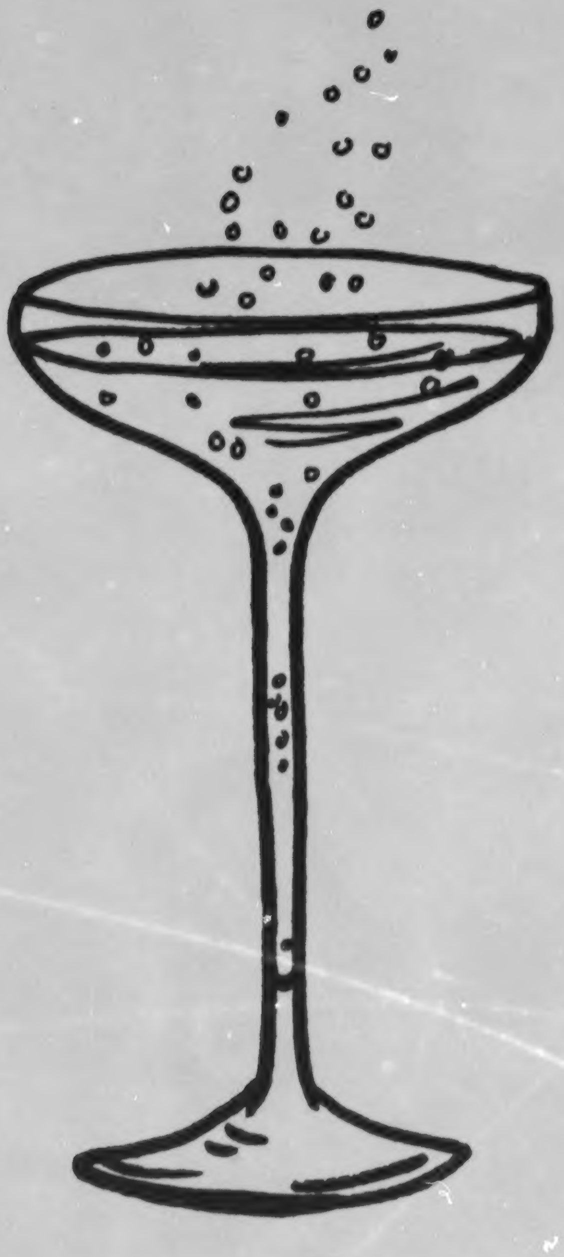
BEER



WINE



CHAMPAGNE



C2

Kindergarten - Lesson V

MR. AND MRS. SMITH'S SHADOWS

Purpose: To have pupils realize that some adults eat and drink and use certain things that children should not.

Materials Needed: *Mr. and Mrs. Smith's Shadows* (e.g., page 37).
Handout: *What Makes Me Healthy?* (page 38), crayons, scissors and paste.

Approximate Time: 30 minutes.

Description: The teacher makes two adult shadows, one of a man and one of a woman, called Mr. and Mrs. Smith, and hangs them on the wall. The teacher introduces Mr. and Mrs. Smith to the class and asks the pupils to say "Hi." "They are make-believe grown-ups, and we're going to see what they might eat, drink or use." The class is divided into two groups, and with the second set of handouts for *What Makes Me Healthy* (page 38), they are asked to decide what Mr. Smith or Mrs. Smith would eat or drink or use. Each student selects a food or drink item, colors it, cuts it out and pastes it on the adult shadow.

*Discussion Questions:

1) Name something selected and tell us why Mr. or Mrs. Smith eats it.
   Apples, ice cream, coffee.
   To be healthy, tastes good, adults like it.

2) Was there anything that Mr. or Mrs. Smith ate, drank or used that you children did not put on your shadow?
   Wine, cigarettes, carrots, coffee.

3) Why would Mr. or Mrs. Smith drink or use those things?
   Adults are allowed to, they like the taste.

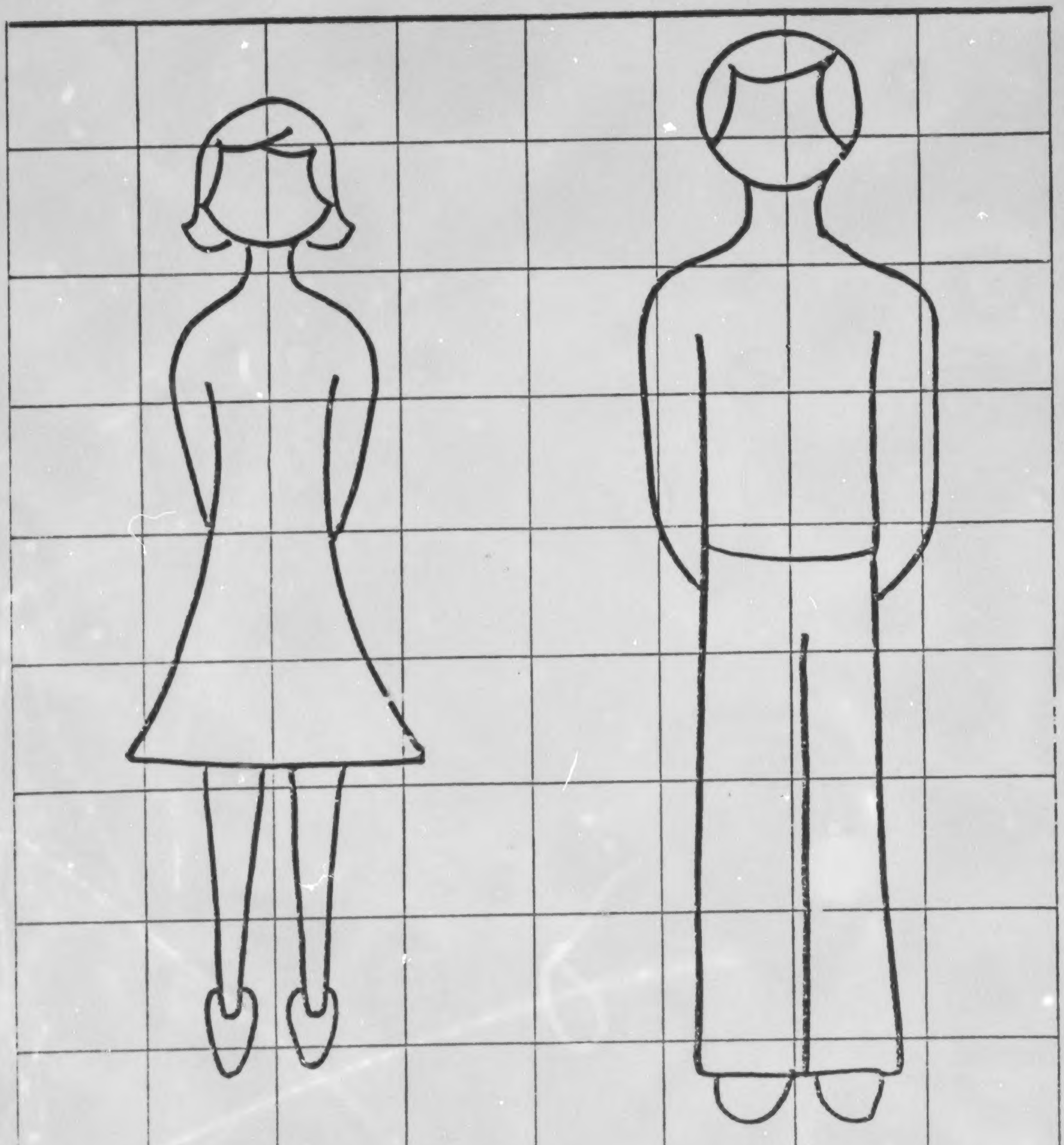
4) When do they drink or use these things?
   Before dinner, at parties, at ballgames, at weddings, when friends come over.

Summary Statement: "Adults sometimes eat, drink or use things that children do not."

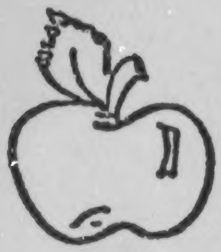
*Once again, answers should be explored as appropriate for increased pupil understanding, and teachers should be prepared for questions about why some adults eat, drink or use certain substances which children should not.

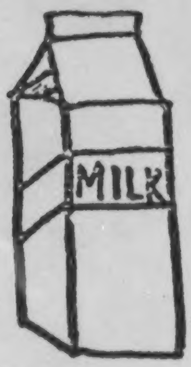
MR. & MRS. SMITH'S SHADOWS

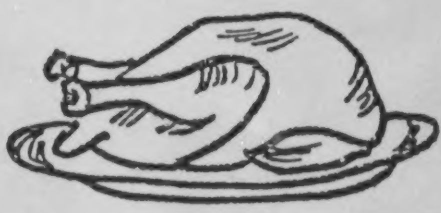
Note: Using the boxes as a graph, the teacher may draw larger forms on brown paper or just trace a live form as the children did in Lesson I.

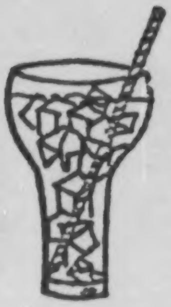


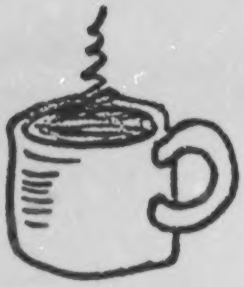
WHAT MAKES ME HEALTHY?

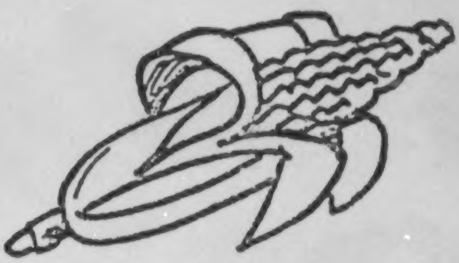


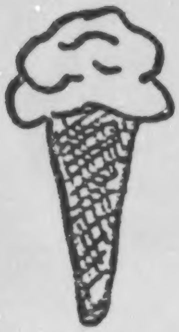


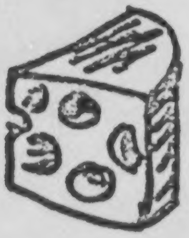


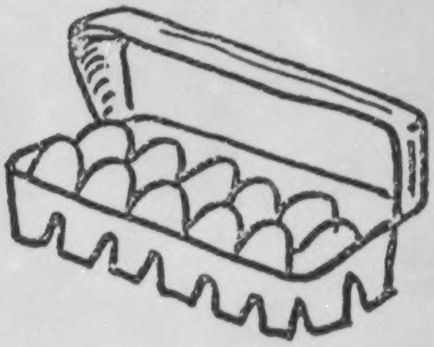


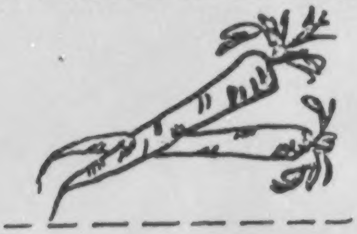


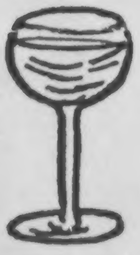


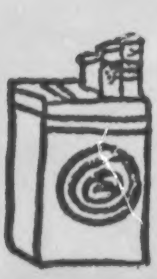


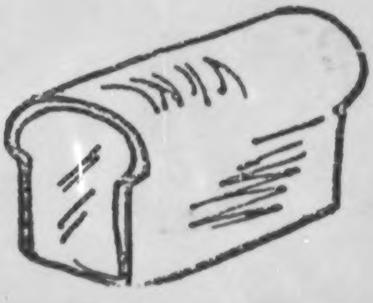












GRADE 1

Objectives

Pupils will be able to identify:

1. alcohol as a drug.
2. noticeable effects of alcohol on behavior.

Content

Drugs are substances which change the way the body and mind function. Certain drugs fight infection, others relieve a cough and some reduce pain. Often a doctor's prescription is needed to buy them. Others, such as aspirin, cold tablets and alcohol, can be purchased by adults without a prescription. All drugs can be dangerous if not used properly and should not be taken by children without parental permission.

Certain foods, beverages and other items also contain drugs. Chocolate, cocoa, cola, coffee and tea contain a drug called caffeine. Tobacco, used in cigarettes, cigars and pipes, contains a drug called nicotine. These items can have a negative effect on one's health.

Some drugs have labels which tell us how they act on the body and mind, warning of their dangers. Although alcoholic beverages do not have this information on the label, they contain the drug alcohol, which can cause changes in the way a person's body and mind function. Like any other drug, alcohol is dangerous to health and safety when not used properly.

Alcohol slows the action of the brain and nerves so that soon after drinking a person may seem relaxed and more friendly than usual. Even after one drink there may be some noticeable changes in behavior.

If drinking continues, we may observe that speech becomes slurred and loud. The person may stagger and knock things over, or he may get angry and want to fight. He may act foolishly or want to go to sleep. Persons who drink too much may get sick to the stomach or fall asleep or pass out.

We sometimes can tell that someone has been drinking alcoholic beverages by the way he acts; however, we cannot always be sure that a person has not been drinking simply because he seems normal. Some experienced drinkers learn to control their behavior so as to appear sober.

Teaching Techniques

1. *Picture Selection (A) and (B)* -- In a group of labeled illustrations of beverages *(A)* pupils circle those containing alcohol. In another group of labeled illustrations *(B)* pupils copy the numbers of those beverages containing a drug.

2. *Draw Me A Picture* -- Pupils draw a picture of an occasion on which Mr. and Mrs. Smith might drink wine, beer, or whiskey, and describe the circumstances to the class. Discussion follows on how the Smiths might act if they drank too much.

3. *Which of These Things Is Not Like the Others?* -- Pupils select three out of four objects that belong to a similar category, identify which object does not belong and discuss why. This leads to a discussion of what alcohol is, the kinds of drinks that contain alcohol and those that do not. It also identifies some substances that contain drugs.

4. *Me Tree* -- Given a ditto of a tree, pupils draw on the branches all the things they like to do and what is needed to make the tree and them grow. Discussion follows on what is good for us to eat and drink.

5. *Let's Pretend* -- Pupils make believe they are healthy trees and then pretend how they would act if they ate or drank the wrong things or too much of something. This leads to a discussion of how people act if they have had too much to drink.

Materials Needed

Crayons
Poster Paper (one sheet)
Teacher's Copy for Cut-Outs of beer, wine, champagne (sparkling wine), coffee, tea, cola, cigar, cigarettes, pipe, cocktail, aspirin, antibiotics (pages 50-52)
Teacher's Demonstration Copy (page 53) of *Which of These Things Is Not Like the Others?*
Drawing Paper
Handouts (One for each pupil):
    1) *Picture Selection (A) and (B)*
    2) *Which of These Things Is Not Like the Others?* (pages 54-55)
    3) *Me Tree* (page 58)

1st Grade - Lesson I

PICTURE SELECTION

Purpose: To have pupils learn to classify commonly used beverages as alcoholic and nonalcoholic and to recognize that certain products contain drugs.

Objective: Pupils will be able to identify alcohol as a drug.

Materials Needed: Handouts of *Picture Selection (A) and (B)*, pages 43-44.

Approximate Time: 30 minutes.

Description: The teacher should begin by defining appropriate words and terms.

Discussion Questions:

1) What is a beverage?
Something you drink.

2) What kinds of beverages do you drink?
Soda (sometimes called pop or tonic), water, milk, lemonade, apple juice.

3) What are some beverages that adults drink that you do not?
Beer, wine, whiskey (liquor), coffee, tea.

4) Do you know what are in these drinks?
Alcohol and caffeine, which are drugs.

5) What is alcohol?
It is a drug, but alcohol comes in different forms for different purposes.

   a. *Rubbing alcohol - is to rub on skin and for other medical purposes. It is not to drink for it is poisonous.*
   b. *Some cough medicines contain alcohol.*
   c. *Certain drinks adults take such as liquor, beer or wine also contain alcohol. These are called alcoholic beverages.*

After distributing handouts of *Picture Selection (A)*, the teacher first makes sure that pupils can identify each item and then asks them to circle only those that contain alcohol. The teacher then asks pupils to identify the four beverages that contain alcohol *(beer, champagne or sparkling wine, cocktails, wine)* and to name some other alcoholic beverages *(rum, whiskey, gin, vodka, brandy, ale).*

The teacher further describes alcohol as a drug, and asks, "What are some other drugs?" *(Medicine, caffeine, nicotine, marijuana.)*

"Some drugs can be good for you when a doctor prescribes them. Let's name some. *(Aspirin, cough medicine, antibiotic medicines to fight germs.)* However, any drug can be harmful if it is used too often. We call this drug abuse."

Distribute handouts of *Picture Selection (B)*. Then, together as a class, decide which beverages contain a *drug* and write the number of that picture on the lines at the side.

What numbers were picked? *3, 4, 5, 7, and 8.*

What drug does #3-wine contain? *Alcohol.*
What drug does #4-beer contain? *Alcohol.*
What drug does #5-coffee contain? *Caffeine.*
What drug does #7-tea contain? *Caffeine.*
What drug does #8-cola contain? *Caffeine.*

Discussion Questions:

1) How does alcohol affect people?
Makes them sleepy, act silly, fight.

2) How does caffeine affect people?
Makes them nervous, jumpy, overly-active.

3) How do certain drugs a doctor gives us make us feel?
If taken in the right amount they should make us feel better--bring fever down, stop cough, relieve pain, stop infection.

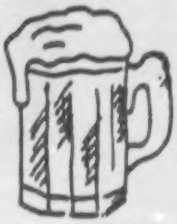
4) Tobacco in cigarettes, cigars and pipes also contains a drug. Do you know what the drug is called?
Nicotine.

5) How can drugs affect us?
They sometimes make us act differently and may affect our health if we take them too often.

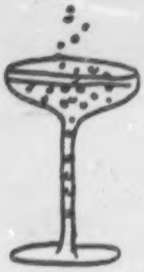
Summary Statement: "Some drinks and other items contain alcohol or other drugs that may affect our health and behavior."

PICTURE SELECTION (A)

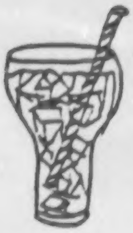
Circle the beverages that contain alcohol.



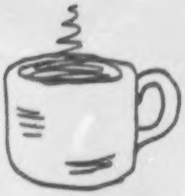
BEER



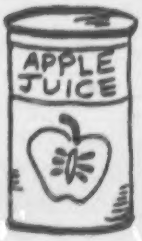
(SPARKLING WINE)



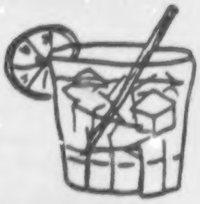
(POP OR TONIC)



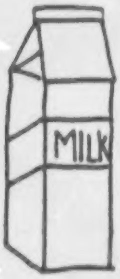
COFFEE


APPLE
JUICE

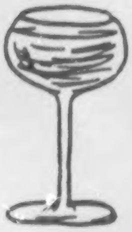
APPLE JUICE



COCKTAIL



MILK



WINE

PICTURE SELECTION (B)

Write the number on the lines provided of those beverages that contain a drug.

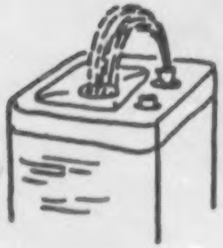
_____

_____

_____

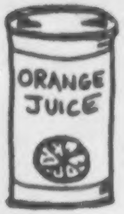
_____

_____



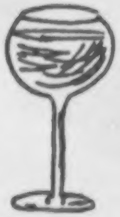
water

1



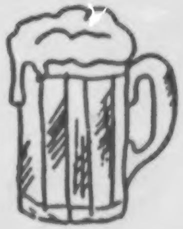
orange juice

2



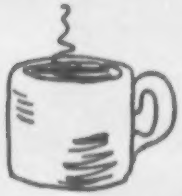
wine

3



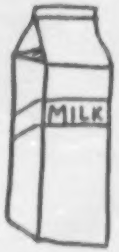
beer

4



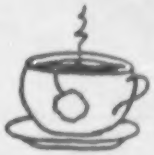
coffee

5



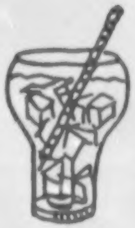
milk

6



tea

7



cola

8

1st Grade - Lesson II

DRAW ME A PICTURE

Purpose:	To help pupils identify situations in which it may not be safe for adults to drink alcoholic beverages.
Objective:	Pupils will be able to identify noticeable effects of alcohol on behavior.
Materials Needed:	Drawing paper, crayons.
Approximate Time:	30 minutes.

Description: The teacher reviews Lesson I, asking the following questions:

1) Which beverages contain alcohol?
   Beer, wine, whiskey (liquor).
2) What other things contain drugs?
   Medicine, coffee, tea, cola.
3) How do drugs affect people?
   They act differently, feel better or worse, etc.

The teacher introduces Mr. and Mrs. Smith as make-believe adults, and draws two stick figures on the board to represent them. The teacher then gives each child a piece of drawing paper and says, "Let's draw a picture of when Mr. and Mrs. Smith might drink wine, beer or any other drink containing alcohol." The children draw such pictures and take turns describing them to the class. Discussion follows on safe and unsafe times for adults to drink alcoholic beverages.

Note: It is difficult not to moralize with these situations, but the main point is that drinking too much anywhere would not be safe.

Examples pupils may give:

Safe -- *At dinner, wedding, picnic, home, restaurant.*

Not Safe -- *Driving a car, fixing a house, cooking, taking care of children.*

Discuss how Mr. and Mrs. Smith might act if they drank too much: *talk funny, wobble, get angry.*

Summary Statement:	"There are times when it is safe for adults to drink alcoholic beverages and times when it is possible for them to drink too much. Some people who have too much to drink may act in peculiar or unsafe ways."

1st Grade - Lesson III

WHICH OF THESE THINGS IS NOT LIKE THE OTHERS?

Purpose: To have pupils learn to classify certain items and to recognize why another item may not belong in a particular class or group; to have them learn to classify commonly used beverages as alcoholic or nonalcoholic.

Objective: Pupils will be able to identify alcohol as a drug.

Materials Needed: Two-page handouts (pages 54-55), stapled together, of *Which of These Things Is Not Like the Others?* Teacher's Demonstration Copy of *Which of These Things Is Not Like the Others?* (page 53). Crayons, poster paper, magic marker and *Teacher's Copy For Cut-Outs* of beer, coffee, tea, cola, wine, champagne, cigar, cigarettes, pipes, aspirin, antibiotics, cocktail (pages 50-52).

Approximate Time: 30 minutes.

Description: The teacher introduces the technique of classification by describing groupings.

Discussion Questions:

1) What do we call any substance that makes us feel and act differently and/or may affect our health?
A drug.

2) Name some drugs.
Aspirin, alcohol, medicine.

Note: There might be further discussion of medicines as drugs which are usually prescribed by a doctor, but which can nevertheless be misused.

3) "Let's look at some pictures (cut from pages 50-52) and decide if they contain a drug, and if so, which drug. I have written three types of drugs on this poster paper--alcohol, nicotine and caffeine--along with medicine, which may contain one or more kinds of drugs. When I hold up one of the pictures, raise your hand if you know what drug it contains and come up and paste the picture on the poster paper under the correct category."

medicine	alcohol
caffeine	nicotine

4) In review, the teacher asks which items contain alcohol, caffeine or nicotine, and which are medicines.

Which of These Things Technique:

This technique has been used on the TV Show Sesame Street. A short song, with everyone joining in, should precede the children's selection of each answer. ("One of these things is not like the others. One of these things doesn't belong. Can you tell which one is not like the others before I finish my song?")

The Teacher's Demonstration Copy (page 53) is to be used as the example so that each child is familiar with the meaning of classification.

Discussion Questions:

1) Which of these things is not like the others--which of these things doesn't belong?
Lollipop.

2) Why?
The others are meats, fruits and vegetables, all of which are nutritious. Lollipops are candy and not nutritious. Too many of them can lead to cavities or make you sick.

Pupils then attempt to do the eight classifications (pages 54-55) on their own, or the teacher may wish to do the first page with the class. The teacher reviews each classification after they have completed all of them.

Note: Any answers should be explored as appropriate for increased understanding.

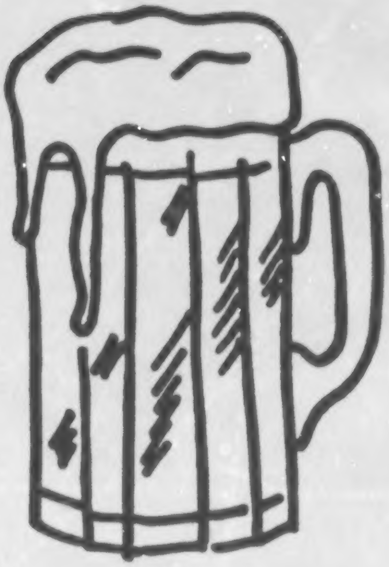
Answers for Groupings:

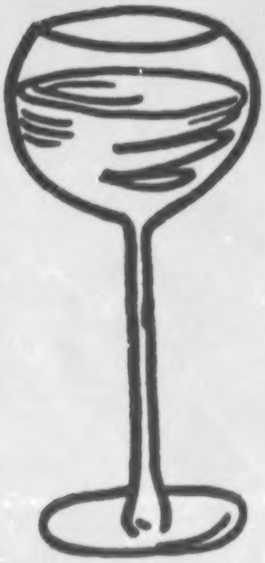
Group

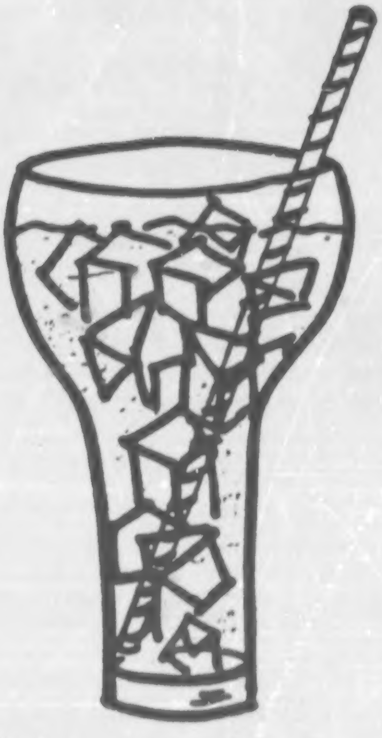
1) *Three are fruits; one is a fish.*
2) *Electric plug, knife and matches all could be dangerous; a toy usually is not.*
3) *Baseball, football and soccer ball are all balls; blocks are not.*
4) *Milk, soda (sometimes called pop or tonic), and apple juice are beverages that children drink; a cocktail (whiskey) is not.*
5) *Bikes, tricycles and cars have wheels; boats do not.*
6) *Beer, wine and champagne contain alcohol; soda does not. However, if the soda is a cola it contains the drug caffeine and all four objects would then contain a drug.*
7) *Traffic light, stop sign and school crossing sign are all traffic signals; a house is not.*
8) *Coffee, beer and tea all contain a drug; milk does not.*

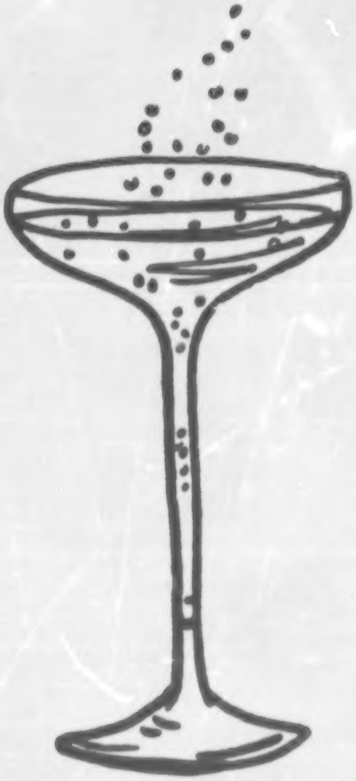
Summary Statement: "Some drugs, such as prescribed medicine, can help us if taken as directed, but other drugs can be harmful."

Teacher's Copy For Cut-Outs

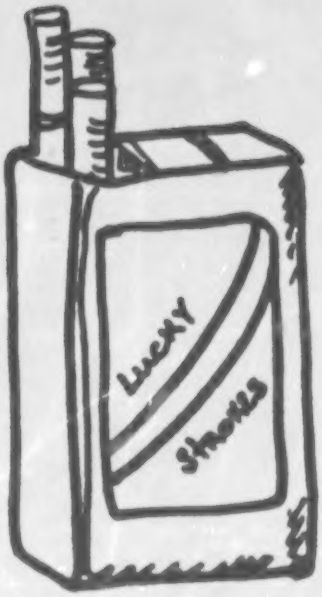


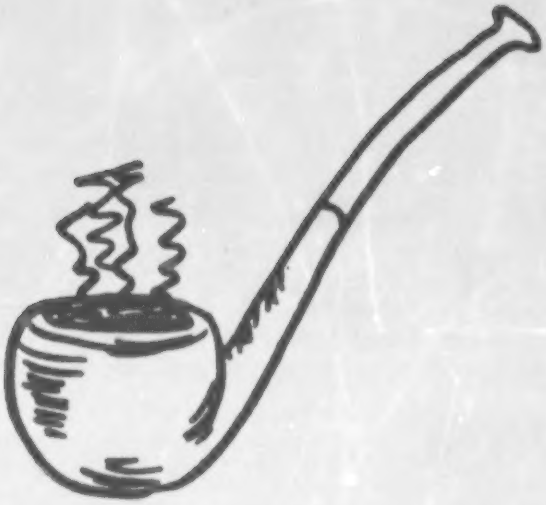


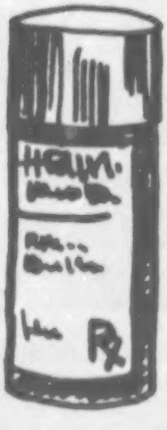


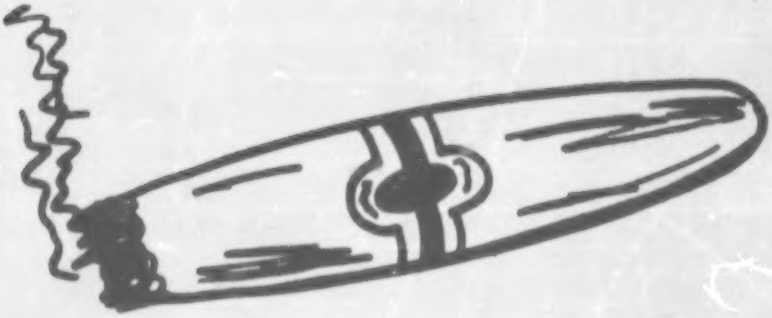


Teacher's Copy For Cut-Outs

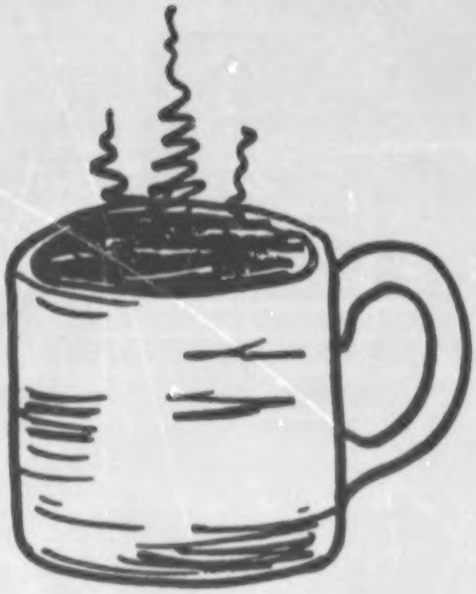

LUCKY
STROKES

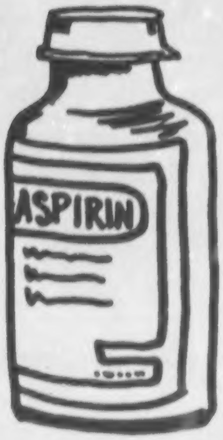


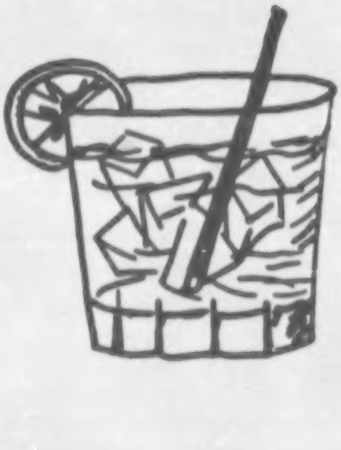


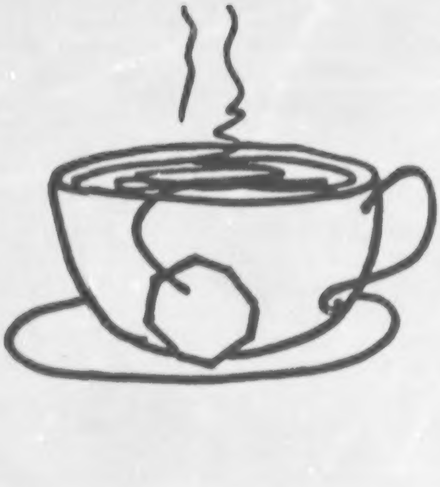


Teacher's Copy For Cut-Outs

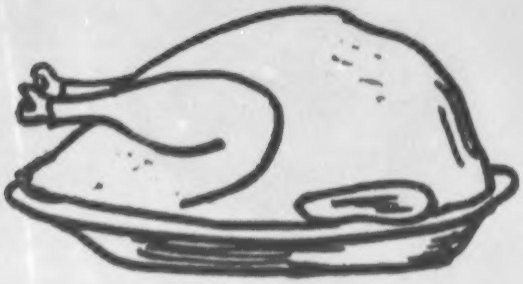


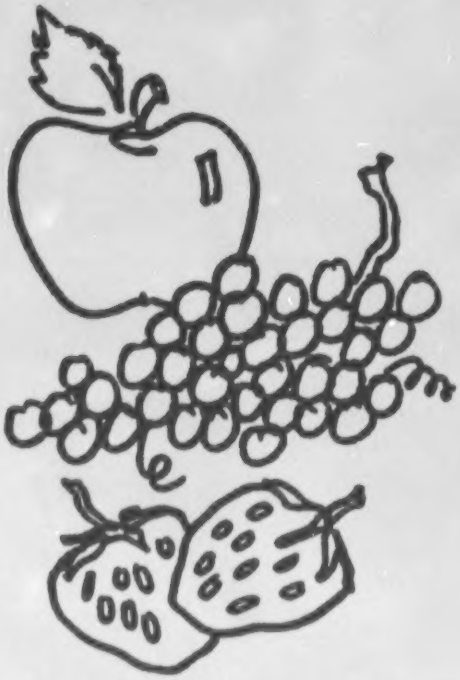


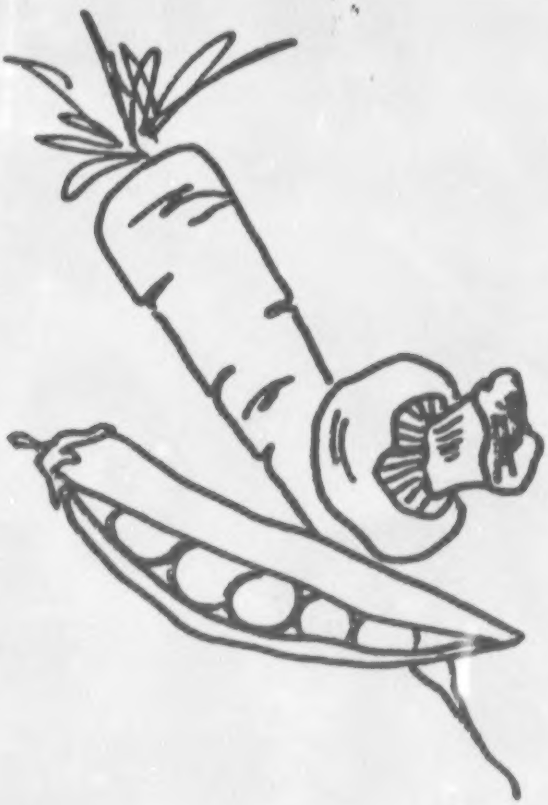


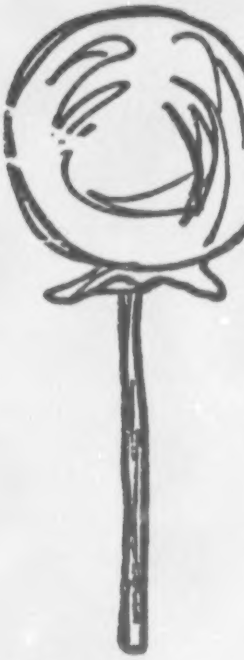


WHICH OF THESE THINGS IS NOT LIKE THE OTHERS?





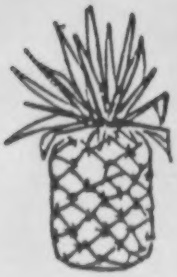


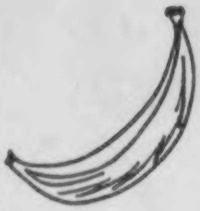


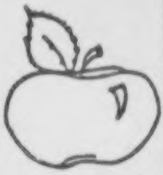
WHICH OF THESE THINGS IS NOT LIKE THE OTHERS?

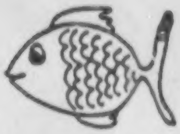
Circle the object that does not belong.

1.

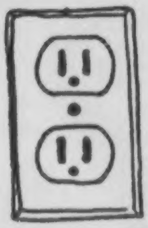


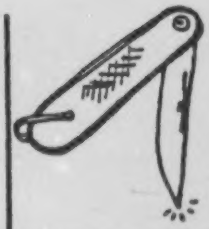


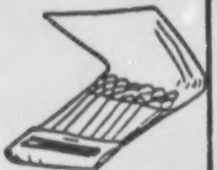


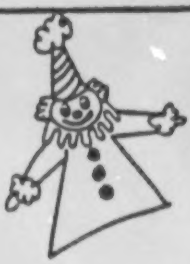


2.

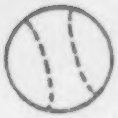


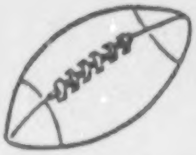


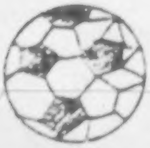


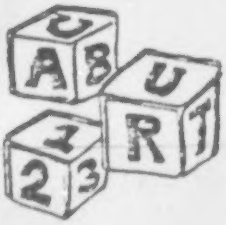


3.

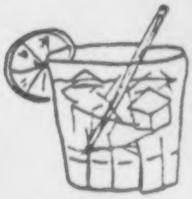


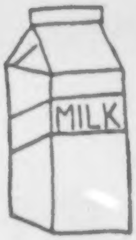


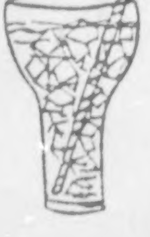


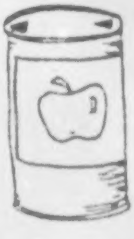


4.





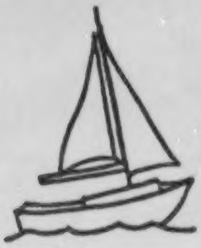


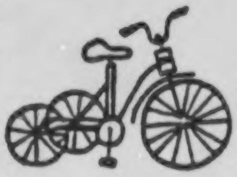


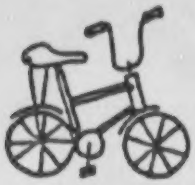
WHICH OF THESE THINGS IS NOT LIKE THE OTHERS?

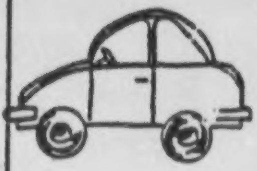
Circle the object that does not belong.

5.

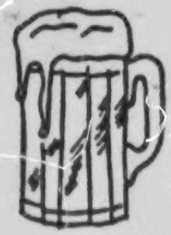


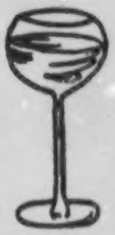


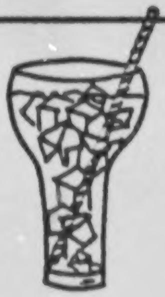


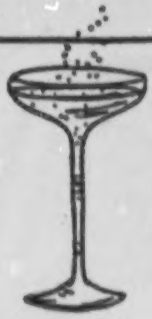


6.

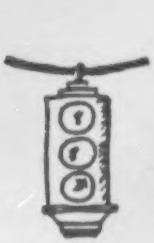


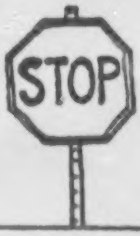


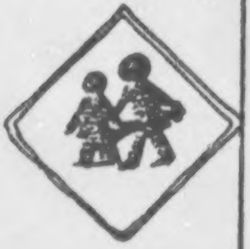


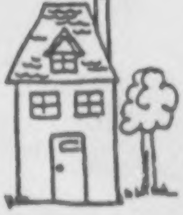


7.

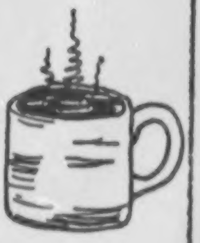


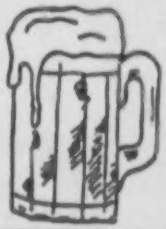


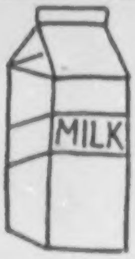


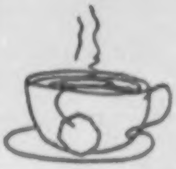


8.







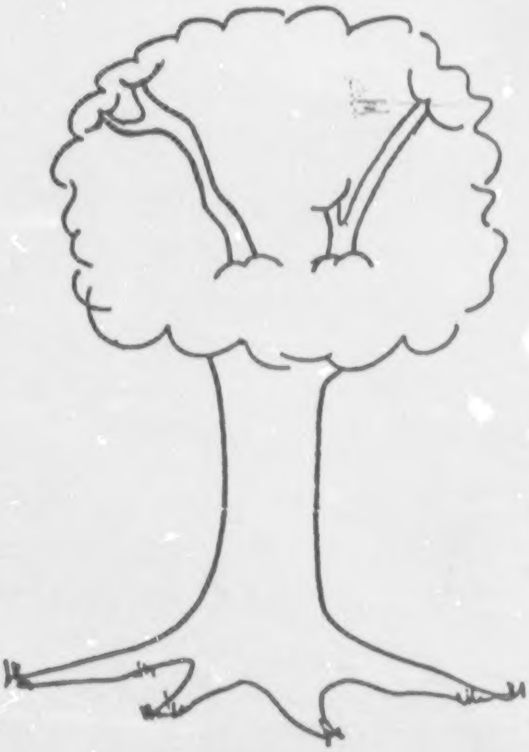


1st Grade - Lesson IV

ME TREE

Purpose:	To have pupils become aware of the fact that certain foods help our bodies grow stronger and are more healthful for us than other foods, and to know those things that help our bodies grow.
Materials Needed:	*Me Tree* handout (page 58), crayons.
Approximate Time:	30 minutes.
Description:	The teacher discusses the trees outside or a plant in the classroom, the changes that can occur to either, as well as the conditions that contribute to the changes. The teacher distributes a *Me Tree* handout to all pupils and asks them to write their name on the line provided on the tree trunk. They are then asked to draw in the top branches of the tree (in the three areas provided) pictures of three things they like to do. *Play baseball, ride a bike, draw pictures, play with dolls.*

ME TREE



Each pupil is asked to tell the class why he/she likes to do one of the things drawn.

At the end of these descriptions the teacher says, "In order to do some of these things we must be strong and healthy."

Discussion Questions:

1) What does a tree need to grow?
   Water/rain, food in soil, sunshine.

2) What do we need to grow and be strong?
   Food/vitamins, water/milk, exercise.

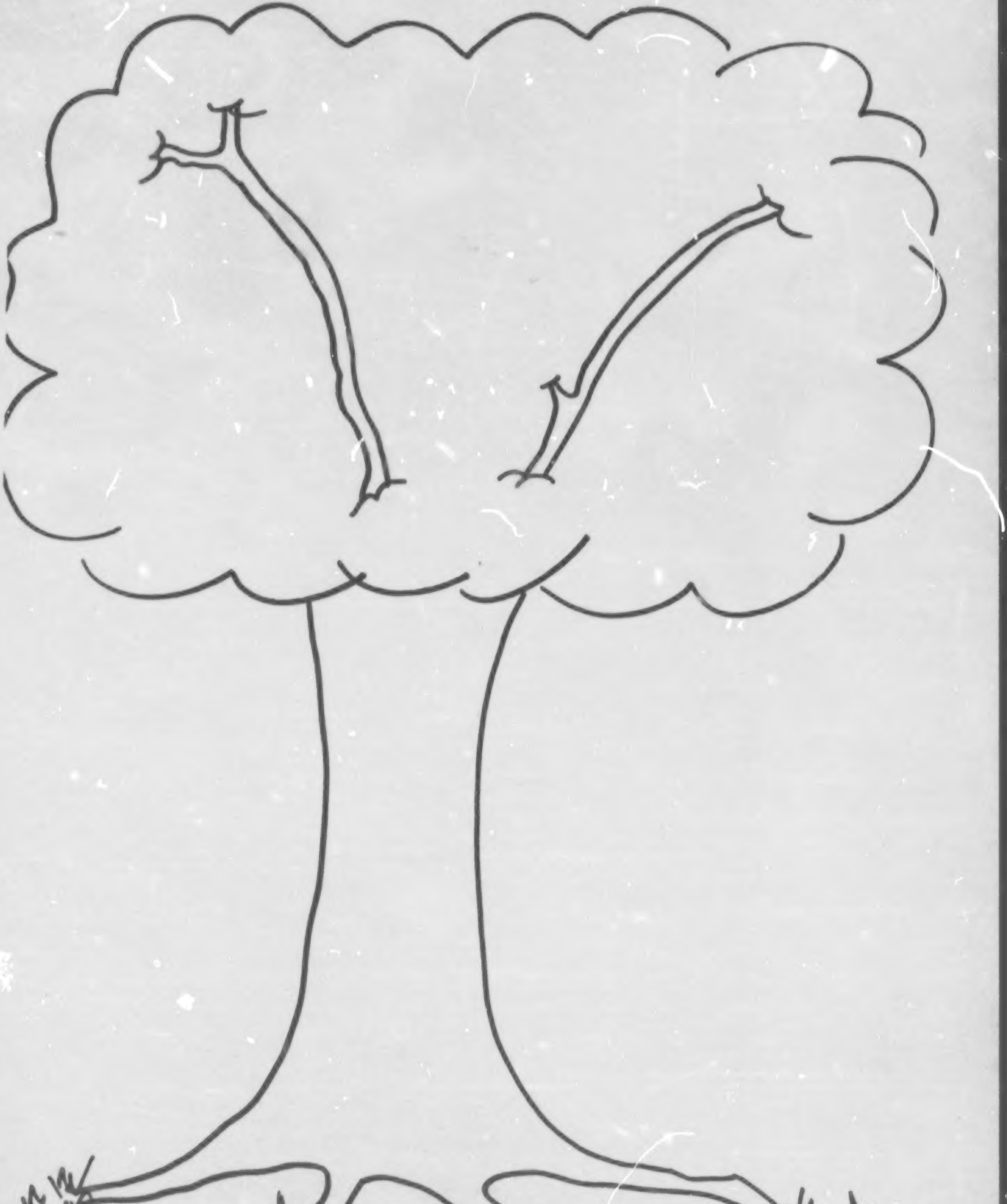
Now the teacher asks the class to draw pictures on the roots of their tree of what they like to eat and drink that helps make them grow and be strong.

3) Which foods and drinks help us to grow better than others?
   Meat, eggs, vegetables, fruit, milk.

4) Why do they help us grow healthier?
   There are substances called nutrients and vitamins and minerals in food that help us grow strong. You cannot see these substances, but they are there.

Summary Statement: "Foods that are high in nutrients, vitamins and minerals are healthful for you and help your bodies grow stronger. If we eat and drink the right things we will be healthy and able to do many of the activities we like to do."

Note: The teacher may wish to have a classroom size *Me Tree* to be kept as a reminder throughout the year, periodically asking pupils to bring in pictures of foods and drinks that help them to be healthy and of activities they enjoy.



1st Grade - Lesson V

LET'S PRETEND

Objective: Pupils will be able to identify noticeable effects of alcohol on behavior.

Materials Needed: Space for children to move around.

Approximate Time: 30 minutes.

Description: Pupils are asked to stand up and make sure they have a little room around them so that they won't bump into others. Remind pupils of "self-space"--all of us need space to move and think by ourselves without bumping into each other. (Try to use all pupils for all activities, but if space is limited, pupils could be divided into three groups, each performing some part of the following activities.)

Teacher then says in a soft, calming voice: "Let's pretend we're trees and have eaten and drunk all the good things we should. Let's make believe we're growing taller and stronger. Reach the branches way up to the sky and stretch the trunk ever so tall. Let our fingers spread out to make new leaves on our tree and sway our branches in the breeze. (Teacher should demonstrate for children to follow.)

"Now let's make believe we didn't eat and drink healthful things. What would happen to our trees? Our leaves might start to fall--let's be slowly falling leaves. A branch may bend and slowly fall down. The trunk may get weaker. If we give the tree some rain, sun and food it may grow again. Pretend that has happened and slowly stand up and become a healthy tree.

"Now let's become people again. (Have pupils act out their answers.) How would you walk if you drank 3-4 glasses of milk each day?" *(Walk strongly, proudly.)* "Why?" "How might you act if you drank six cans of soda all at once?" *(Sick, stomachache, walk bent over.)* "Why?" "What if you drank a can of beer? How might you act?" *(Stagger, silly.)* "Why?" *(Beer contains alcohol.)*

Discussion Question:

What are some of the ways people act when they've had too much to drink?
Happy, angry, silly, stagger, get sick.

Review what was covered in previous lessons about alcohol and other drugs. What is alcohol? What is a drug? In addition to alcohol, what are some other drugs? Can drugs be good for you? Bad for you? How can alcohol affect the way we act?

Summary Statement: "Alcohol can make us act differently from the way we usually do."

Note: If the teacher has asked pupils to bring in pictures for a classroom size *Me Tree* (see Note on page 57), pupils can paste these pictures on the tree as a reminder of what makes us healthy.

GRADE 2

Objectives

Pupils will be able to identify:

1. the effects of alcohol on judgment.
2. the effects of alcohol on the performance of physical tasks and activities.
3. the effects of alcohol on vision.
4. risk situations in which drinking is not safe.

Content

Alcohol slows the action of the brain and reduces self-control. When this happens, the drinker is not able to think clearly or make sensible choices. Judgment is the first function of the body to be affected temporarily by alcohol. Even a small quantity of alcohol causes certain people to lose some self-control, and do things which they might not attempt if they were not drinking. They may take chances which threaten their safety or that of others, or behave in ways which could cause embarrassment. In other words, they no longer have good judgment.

As the intake of alcohol is increased, the brain has more trouble sending messages to the muscles telling them when and how to move. Functions which usually seem automatic become difficult to accomplish because of clumsiness. After heavy drinking a simple task such as putting on a coat, tying a bow or walking in a straight line can become very difficult. With more complex tasks, like playing sports, riding a bike or driving a car, even a small quantity of alcohol can interfere with the quick actions necessary to perform well.

Alcohol can interfere with vision, making it difficult for the drinker to see things as they really are. Looking at a person or a car he may see two of them when only one really is there. He may lose his sense of how far away things are and believe that they are closer or farther away than is accurate, and it may become difficult for him to tell some colors from others. His ability to see persons or objects (like automobiles) to the side may be impaired, and he may have difficulty adjusting his eyes from light to dark, or vice versa. Not only vision, but the other senses as well may be affected by drinking alcoholic beverages.

Some situations pose a greater risk to safety than others because they require high level performance skills. For example, driving a car, riding a bicycle and walking in traffic make such demands. Therefore, any substance which interferes with alert senses, wise judgment, and quick reaction increases risk in these activities--and alcohol is such a substance.

Teaching Techniques

1. *Picture Selection (A) and (B)* -- On a group of labeled illustrations of beverages *(A)*, pupils circle those containing alcohol. On another group of illustrations *(B)*, they write the names of beverages containing a drug.

2. *The Adventures of Froggy and Dodo* -- From this lap book the teacher reads a story in which the characters are involved in a drinking situation. The lap book has a total of 28 pages, 14 of brief narrative and 14 of pictures of Froggy and Dodo performing various tasks after they have inadvertently drunk some beer. The narrative is read by the teacher as the pupils see the related pictures. Discussion follows on the effects of alcohol on the mind, body and behavior.

3. *Safe or Not Safe?* -- Pupils look at six pictures and decide if it would or would not be safe for people to drink alcoholic beverages in those situations. Discussion follows.

4. *Find the Word* -- Pupils locate words (word search) which are hidden vertically or horizontally in a block of letters. Discussion follows about the words and their meanings.

5. *Decode the Words and Messages* -- Pupils are given a handout that requires arithmetic skills and coding to be translated into words or messages about alcohol. Discussion follows.

6. *Come to the Head of the Class* -- A game in which the class is divided into two groups, each one equidistant from the teacher's desk. Answer cards are distributed to each team. The teacher reads a question, and the first pupil getting to the desk with the correct answer card wins a point of his team.

Materials Needed

The Adventures of Froggy and Dodo, a lap book story described on page 62.
Find the Word (Teacher's Copy with Answers, page 76)
Decode the Words and Messages (Teacher's Copy with Answers, page 78)
Come to the Head of the Class (Teacher's Question-and-Answer Sheet, page 82)
Come to the Head of the Class (Answer cards, pages 83-85)
Handouts: 1) *Picture Selection (A) and (B)* (one copy of each for every pupil, pages 65-66)
    2) *Safe or Not Safe?* (a copy of both pages for each pupil, pages 72-73)
    3) *Find the Word* (one copy for each pupil, page 77)
    4) *Decode the Words and Messages* (one copy for each pupil, page 79)

2nd Grade - Lesson I

PICTURE SELECTION

Purpose: To have pupils classify common beverages as alcoholic and nonalcoholic, to recognize that certain products contain drugs and to identify alcohol as a drug.

Materials Needed: Handouts of *Picture Selection (A) and (B)*, (pages 65-66).

Approximate Time: 30 minutes.

Description: "We're going to be learning and doing different things in the next five lessons. We're going to learn some new words."

Discussion Questions (Answers from children to be written on the chalkboard):

1) What does the word *beverage* mean?
Comes in a glass, something you drink.

2) Name some beverages.
Soda (sometimes called pop or tonic), water, orange juice, tea, champagne (sparkling wine), coffee.

3) Name some beverages that contain alcohol.
Whiskey, beer, wine, champagne, Bloody Mary.

The teacher then distributes *Picture Selection A* and has all pupils identify each of the drinks *before* circling only those with alcohol.

Up to this point the lesson has been mainly review and is summarized by the teacher's saying that beer, champagne, a cocktail and wine are four alcoholic beverages. The teacher may then ask for other examples of alcoholic beverages *(gin, vodka, ale, scotch).*

The teacher may wish to discuss what a cocktail is *(a mixture of two or more alcoholic beverages or of alcoholic beverages and fruit).* What is a Shirley Temple? *(A make-believe cocktail for children that contains no alcohol.)*

"Do you know that alcohol is a drug? Do you know other drugs taken by many people?"

1) *Medicines, like aspirin, antibiotics (medicines to fight germs), cough medicine. Most of these should be taken only on a doctor's advice.*

2) *Caffeine, which is found in coffee, tea, cola.*

3) *Nicotine, found in tobacco in cigars, cigarettes, pipes.*

Note: The examples above should be drawn from the pupils, with the teacher filling in as necessary.

Hand out *Picture Selection B* and ask pupils all together to identify each picture. Each pupil is then asked which beverages contain a drug and to write the names on the lines provided on the side.

Discussion Questions:

1) Which beverages did you choose?
Wine, beer, coffee, tea, cola.

2) What drug does wine contain?
Alcohol.

3) What does beer contain?
Alcohol.

4) What does coffee contain?
Caffeine.

5) What does tea contain?
Caffeine.

6) What does cola contain?
Caffeine.

7) How does alcohol affect people?
Makes them sleepy, act silly, walk funny.

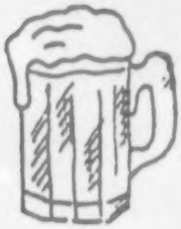
8) How does caffeine affect people?
Makes them nervous, jumpy, active.
[Nicotine found in cigarettes, cigars and pipes can also make people jumpy or nervous.]

9) What can drugs called medicines do for us?
Bring down a fever, stop a cough, relieve pain, stop infection.

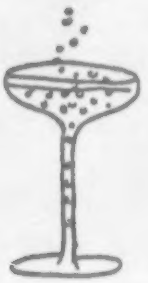
Summary Statement: "Some drinks and other items contain alcohol or other drugs that may affect our health and behavior."

PICTURE SELECTION (A)

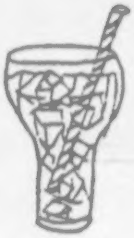
Circle the beverages that contain alcohol.



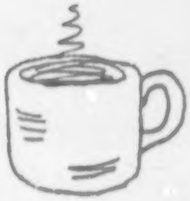
BEER



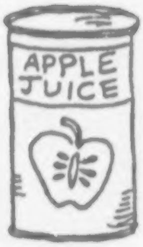
(SPARKLING WINE)



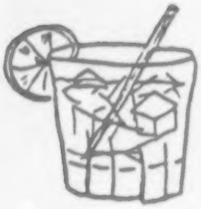
(POP OR TONIC)



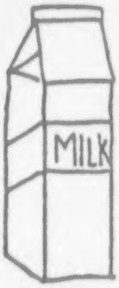
COFFEE


APPLE
JUICE

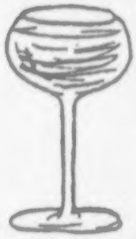
APPLE JUICE



COCKTAIL



MILK



WINE

PICTURE SELECTION (B)

Write the name on the lines provided of those beverages that contain a drug.

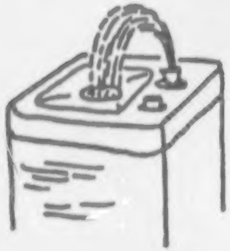
____

____

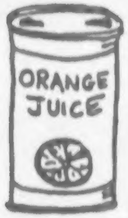
____

____

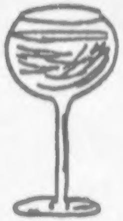
____



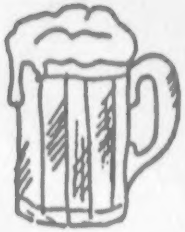
water


ORANGE JUICE

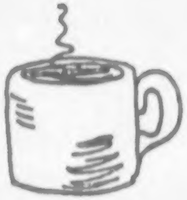
orange juice



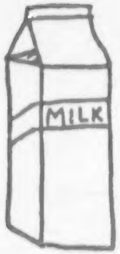
wine



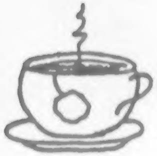
beer



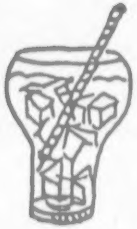
coffee



milk



tea



cola

2nd Grade - Lesson II

ADVENTURES OF FROGGY AND DODO

Objectives:	Pupils will be able to identify:

1. the effects of alcohol on judgment.
2. the effects of alcohol on the performance of physical tasks and activities.
3. the effects of alcohol on vision.
4. risk situations in which drinking is not safe.

Materials Needed:	The *Adventures of Froggy and Dodo*, a lap book story.
Approximate Time:	30 minutes.
Description:	"Today we're going to continue our discussion of alcohol, but first, let's go over some words we've just learned and add some new ones."

1. Beverage--a liquid you drink.
2. Drug--something that changes the way you feel or act.
3. Alcohol--a drug found in some beverages.
4. Vision--how well you see things.
5. Muscular coordination--how you move your muscles (arms, legs), how well they work and how you perform physical tasks.
6. Judgment--how you think, makes choices, use your brain.

Note on use of *Adventures of Froggy and Dodo,* the lap book story: Place the lap book against your chest with rings down, title facing pupils (who have been gathered in a semi-circle around you), so that when the cover page is dropped, words are on your lap (readable by you) and pictures are perpendicular to your lap (easily visible to pupils).

The teacher reads the *Adventures of Froggy and Dodo* as the pupils look at the corresponding pictures. The characters and situation describe the effects of alcohol on judgment, muscular coordination and vision, and show its influence on risk-taking.

Discussion Questions:

1) Does anyone remember what Froggy and Dodo drank?
Beer.

2) What does beer contain that may have affected Froggy and Dodo?
Alcohol.

3) How did Froggy and Dodo feel after they drank the beer?
Dizzy.

4) Do you think they had too much to drink? Yes? How do we know?
The way they acted.

5) How did it affect their vision?
They couldn't see well.

6) How do we know that? What happened to Dodo?
He bumped into a tree.

7) How did it affect Dodo's muscular coordination?
His wings felt funny, and it was hard for him to fly.

8) What did Froggy try to do after they drank the beer?
He tried to fly.

9) Do you think Froggy would have tried to fly if he hadn't drunk the beer?
No.

10) Then why do you think he did try?
Sometimes after drinking alcohol people do things (take risks) they wouldn't normally do (poor judgment).

11) Why would alcohol make them do these things?
It's a drug that causes us to do things we wouldn't usually do, and it may not be safe to do these things.

12) What would you tell Froggy and Dodo the next time they were thinking of drinking some beer?
Not to drink it as they may get hurt.

Summary Statement: "Just as we saw the effects of alcohol on the decisions (choices) that Froggy and Dodo made, their poor vision and the problems they had moving, so we too will perhaps have similar effects and do things that are not safe, if we drink alcohol."

2nd Grade - Lesson III

SAFE OR NOT SAFE?

Objective: Pupils will be able to identify risk situations in which drinking is not safe.

Materials Needed: Handout of *Safe or Not Safe?* (pages 72-73)

Approximate Time: 30 minutes.

Description: "Does anyone remember what Froggy and Dodo drank? *Beer.* What is beer? *An alcoholic drink.* What effects did it have on our little friends? *It caused them to try things they wouldn't normally try, and they could have gotten hurt.* There are times when drinking even small amounts of alcohol is not safe. What things in the *Lap Book* were unsafe to try after drinking alcohol? *Trying to fly.* Flying requires muscle coordination and good vision and judgment and becomes dangerous to do after drinking alcohol."

The teacher writes Safe and Not Safe on the chalkboard and explains their meanings as they relate to the *Adventures of Froggy and Dodo.*

The teacher distributes handouts of *Safe or Not Safe* to the children and asks them to look at each picture and decide whether or not it would be safe for people to drink alcoholic beverages in that situation (scene).

The pupils then are to write Safe or Not Safe on the line next to the picture. The discussion which follows should be based on these choices and include the effects of alcohol on vision, judgment and physical activities.

Discussion Questions:

Situation #1--Wedding:

1) What do you see in the first picture?
A bride and groom at a wedding.

2) Would it be safe or not safe to drink alcohol in this situation?
Could either be safe or unsafe.

3) When would it be safe?
Drinking alcohol is sometimes used in celebrating and toasting or wishing good luck to the bride and groom.

4) When would it be unsafe?
If they had to drive home and had too much to drink.

Situation #2--Lady Cooking:

1) What is this lady doing?
Cooking over a hot stove and drinking wine.

2) Would it be safe or not safe to drink alcohol in this situation?
Not safe.

3) Why?
The lady might get cut or burned.

Situation #3--Car:

1) What do you see in this picture?
A family driving in a car.

2) Would it be safe or not safe to drink in a car?
Not safe.

3) Why?
Alcohol slows reflexes and gets in the way of good judgment and you could get into an accident. Also vision is blurred and you may get sleepy or accidentally hit the brake, or the gas pedal or fail to turn the steering wheel.

Situation #4--Painting:

1) What is this man doing?
Painting while standing on a ladder.

2) What else do you see in the picture?
A can of beer.

3) Would it be safe or not safe to drink alcohol in this situation?
Not safe.

4) Why?
If he drank too much, the man could lose his balance and fall off the ladder and get hurt.

Situation #5--Dinner Table:

1) What are these people doing?
Sitting at a table and eating.

2) Would it be safe or not safe to drink in this situation?
Safe.

3) Why?
They are all adults. It may be a celebration. Many people have an alcoholic beverage with their meal. The effects of alcohol are slowed down somewhat when taken with food. However, if they drink too much, it could be unsafe.

Situation #6--Teenager on Bike:

1) What is this teenager doing?
Riding a bike.

2) Is this situation safe or not safe?
Safe.

3) Why?
He will be safe if he's careful and obeys the traffic rules.

4) What if he had been drinking beer or wine?
Then it would be unsafe.

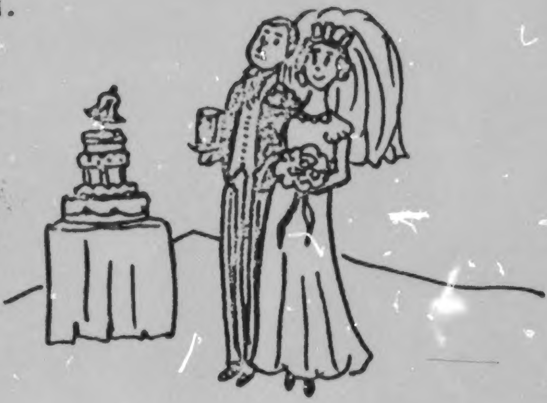
5) Why?
He'd lose good judgment and his sense of balance would not be as good. He could get hurt.

Summary Statement: "At certain times adults find it safe to drink alcoholic beverages, such as at a wedding, or dinner. However, no matter what the occasion, too much drinking would not be safe because it affects vision, judgment and muscle coordination."

SAFE OR NOT SAFE?

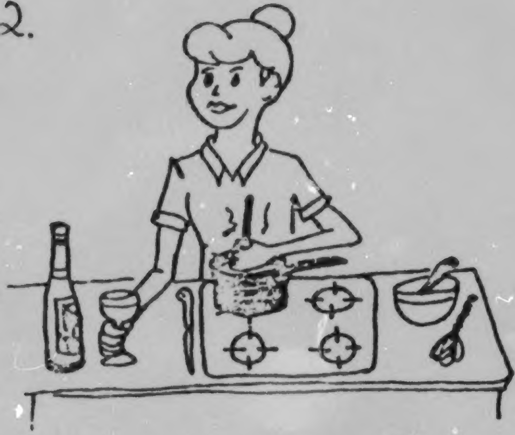
Look at pictures and decide if it would be safe or not safe for people to drink alcoholic beverages in that situation. Write Safe or Not Safe next to the picture.

1.



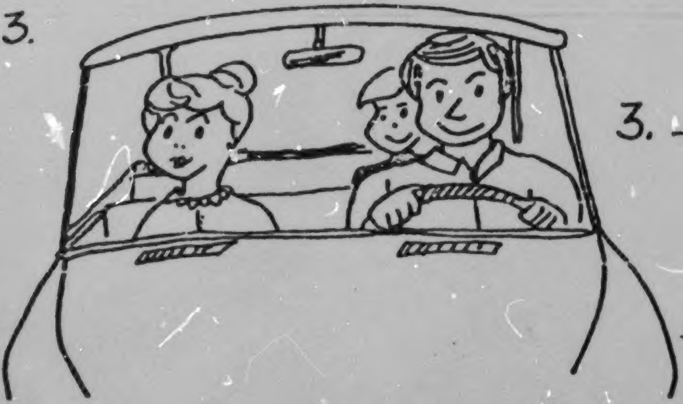
1. ______________________________

2.



2. ______________________________

3.

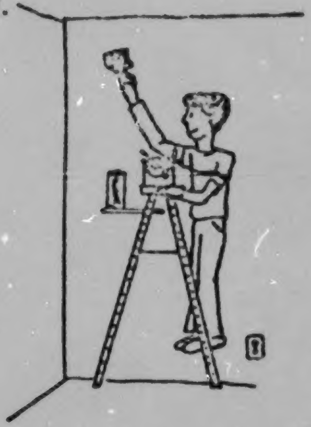


3. ______________________________

SAFE OR NOT SAFE?

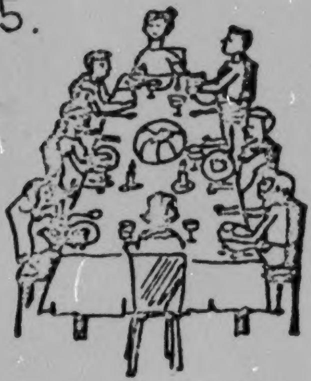
Look at pictures and decide if it would be safe or not safe for people to drink alcoholic beverages in that situation. Write Safe or Not Safe next to the picture.

4.



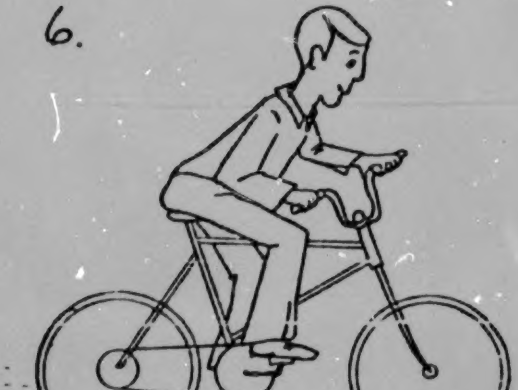
4. ______________________________

5.



5. ______________________________

6.



6. ______________________________

2nd Grade - Lesson IV

FIND THE WORD AND *DECODE THE WORDS AND MESSAGES*

Purpose: To have pupils explore words and phrases that tell us about alcohol and its effects.

Materials Needed: Handouts of *Find the Word* (page 77) and *Decode the Words and Messages* (page 79).

Approximate Time: 30 minutes.

Description: "Today let's play detective. I'm going to hand out a sheet of paper with words on it, and you are to search through the block of letters and circle the word when you find it. The words will be written either up and down (vertically) or sideways (horizontally). Circle the number of each word as you find it. Let's see how good a detective we can be. (Give time for children to find words--10 minutes.) Time's up! How many found all the words? How many found several words? Good! As good detectives let's see if we know what these words mean and how they fit into our lesson about alcohol."

Note: The teacher may wish to write the entire *Find the Word* on the chalkboard ahead of time and have the children come up to circle the words they found.

Discussion Questions:

1) What does alcohol mean?
A drug found in alcoholic beverages.

2) What other words did you find that are beverages containing alcohol?
Beer, gin, liquor, rum, wine.

3) Did you know that gin and rum are called liquor?

4) What is a bar and how does it relate to alcohol?
A place where alcoholic beverages are served and where adults go to drink and talk.

5) What other word on the list is a place where people go to drink and talk to other people?
Party.

6) What is a drug?
A substance such as medicine or alcohol that may affect our behavior.

7) What does *drunk* mean?
The way a person acts who has had too much to drink.

8) Which two words on the list describe two things that are affected by alcohol?
Judgment and vision.

9) What is a six-pack?
A (slang) term for a package for six cans of beer.

10) Why is the word risk on the list?
Some people take chances or extra risks when they drink alcoholic beverages.

The teacher then distributes the handout *Decode the Words and Messages.*

If time allows, children may do these in a class. If not, they could take them home and discuss the answers with their parents. The teacher should do at least one of them in class as an example.

Summary Statement: "We're learning more and more about alcohol and its effects. Let's share this knowledge with others when we can."

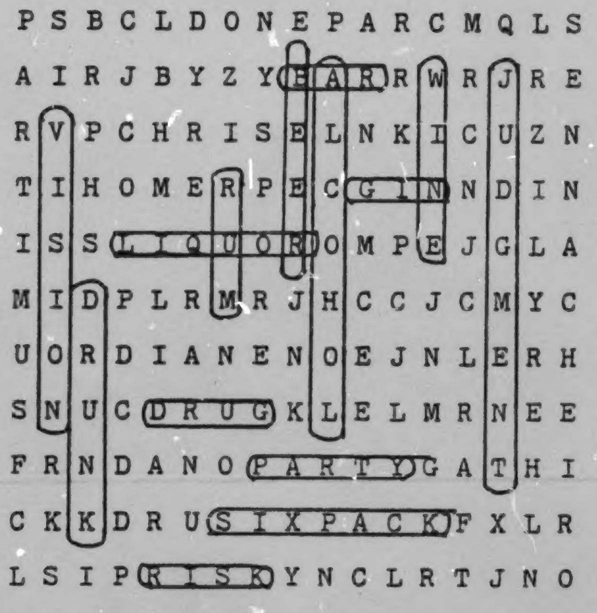
Teacher's Copy with Answers

FIND THE WORD

Draw a line around each word you find (from the list below) in the block of letters. Circle the number of each word. Count how many you find and put that number on the line at the bottom of the page.

Words to find

1. ALCOHOL
2. BAR
3. BEER
4. DRUG
5. DRUNK
6. GIN
7. JUDGMENT
8. LIQUOR
9. PARTY
10. RISK
11. RUM
12. SIX PACK
13. VISION
14. WINE



P S B C L D O N E P A R C M Q L S

A I R J B Y Z Y B A R R W R J R E

R V P C H R I S E L N K I C U Z N

T I H O M E R P E C G I N N D I N

I S S L I Q U O R O M P E J G L A

M I D P L R M R J H C C J C M Y C

U O R D I A N E N O E J N L E R H

S N U C D R U G K L E L M R N E E

F R N D A N O P A R T Y G A T H I

C K K D R U S I X P A C K F X L R

L S I P R I S K Y N C L R T J N O

FIND THE WORD

Draw a line around each word you find (from the list below) in the block of letters. Circle the number of each word you find. Count how many you find and put that number on the line at the bottom of the page.

Words to find

1. ALCOHOL
2. BAR
3. BEER
4. DRUG
5. DRUNK
6. GIN
7. JUDGMENT
8. LIQUOR
9. PARTY
10. RISK
11. RUM
12. SIX PACK
13. VISION
14. WINE

P S B C L D O N E P A R C M Q L S

A I R J B Y Z Y B A R R W R J R E

R V P C H R I S E L N K I C U Z N

T I H O M E R P E C G I N N D I N

I S S L I Q U O R O M P E J G L A

M I D P L R M R J H C C J C M Y C

U O R D I A N E N O E J N L E R H

S N U C D R U G K L E L M R N E E

F R N D A N O P A R T Y G A T H I

C K K D R U S I X P A C K F X L R

L S I P R I S K Y N C L R T J N O

____

Teacher's Copy with Answers

DECODE THE WORDS AND MESSAGES

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

T	U	V	W	X	Y	Z
20	21	22	23	24	25	26

Using the code key above decode the words and messages below:

1.) 1-12-3-15-8-15-12 9-19 1 4-18-21-7

Alcohol is a drug.

2.) 2-5-5-18, 23-9-14-5 1-14-4 23-8-9-19-11-5-25

Beer, wine and whiskey

1-12-12 3-15-14-20-1-9-14 1-12-3-15-8-15-12

all contain alcohol.

3.)

10	10	7	6
+13	-1	+7	-1
23	9	14	5
W	I	N	E

4.)

8	9	10	10
-4	+9	+11	-3
4	18	21	7
D	R	U	G

5.)

11	9	12	8	10	8
+11	-0	+7	+1	+5	+6
22	9	19	9	15	14
V	I	S	I	O	N

6.)

8	5	1	1	2	3	6
2	5	0	3	2	1	6
+9	+10	+0	+3	+3	+1	+6
19	20	1	7	7	5	18
S	T	A	G	G	E	R

7.) Alcohol affects one's

10	21	4	7	13	5	14	20
J	U	D	G	M	E	N	T

DECODE THE WORDS AND MESSAGES

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

T	U	V	W	X	Y	Z
20	21	22	23	24	25	26

Using the code key above decode the words and messages below:

1.) 1-12-3-15-8-15-12 9-19 1 4-18-21-7

________________ ____ _ ________ .

2.) 2-5-5-18, 23-9-14-5 1-14-4 23-8-9-19-11-5-25

________, ________ ______ ________________

1-12-12 3-15-14-20-1-9-14 1-12-3-15-8-15-12

______ ________________ ________________.

3.)

10	10	7	6
+13	-1	+7	-1
___	___	___	___
___	___	___	___

4.)

8	9	10	10
-4	+9	+11	-3
___	___	___	___
___	___	___	___

5.)

11	9	12	8	10	8
+11	-0	+7	+1	+5	+6
___	___	___	___	___	___
___	___	___	___	___	___

6.)

8	5	1	1	2	3	6
2	5	0	3	2	1	6
+9	+10	+0	+3	+3	+1	+6
___	___	___	___	___	___	___
___	___	___	___	___	___	___

7.) Alcohol effects one's 10 21 4 7 13 5 14 20

___ ___ _ _ _ _ ___ ___

2nd Grade - Lesson V

COME TO THE HEAD OF THE CLASS

Objectives: Pupils will be able to identify:

1. the effects of alcohol on judgment.
2. the effects of alcohol on the performance of physical tasks and activities.
3. the effects of alcohol on vision.
4. risk situations in which drinking is not safe.

Materials Needed: *Come to the Head of the Class* (Teacher's Question-and-Answer Sheet, page 82); (Answer cards, pages 83-85, two sets, one for each team).

Approximate Time: 30 minutes.

Description: Review the words in *Decode the Words and Messages* (used in Lesson IV) and describe those the pupils do not understand.

The teacher introduces the game *Come to the Head of the Class* by dividing the class into two teams and seating them so that each opponent is equally distant from her desk (or the teacher can sit in the middle of a circle of pupils). Each pupil is given a word card which corresponds to an incomplete statement that will be read by the teacher. The teacher asks each pupil to read his own word to himself. Both teams receive duplicate sets of word cards so that one pupil on each team has the correct word card to complete each statement.

The teacher then explains the rules of the game. "Each of you has a word written on your card that completes one of the statements I will read. After I read the statement, and if you think you have the correct word, bring the card up to me." The first one to bring the teacher the correct word wins a point for his team. If the statement is not clear to pupils, the teacher may rephrase it or give a further clue. (Following the award of each point, the teacher might wish to add relevant information to take advantage of teachable moments as well as to lessen the buildup of competitiveness to the neglect of what is being learned.)

This activity continues until all statements are correctly completed. The team with the most points wins. (When the winner is announced, the teacher might add that no matter who won, if something valuable was learned in the process, everyone is a "winner.") Discussion follows. Time permitting, pupils can be asked to write a sentence using their word.

Summary Statement: "Over the past five lessons we've learned that alcohol can affect vision and the way a person makes decisions and performs tasks. We've also learned that at times drinking is not safe--such as when driving or riding a bike--but we also know that if one drinks too much even the simplest situation could become dangerous."

Teacher's Question-and-Answer Sheet

COME TO THE HEAD OF THE CLASS

1. Alcohol can slow down the action of the brain so much that a person may even fall *ASLEEP* .
2. Beer, wine and whiskey all contain *ALCOHOL* .
3. When a person has been drinking and sees double, we say alcohol has affected his *VISION* .
4. Since alcohol has an effect on muscular coordination, if one drinks too much and tries to walk he may *STAGGER* .
5. Alcohol is a *DRUG* .
6. The first ability of a person to be affected by drinking alcohol is *JUDGMENT* .
7. An occasion on which it would be acceptable for adults to drink is a *WEDDING* .
8. A situation unsafe after drinking is driving a *CAR* .
9. An alcoholic beverage made from grapes is called *WINE* .
10. An alcoholic beverage that some people drink from a can is called *BEER* .
11. Coffee and tea both contain a drug called *CAFFEINE* .
12. When a person staggers, sees double and has obviously had too much to drink, we say he is *DRUNK* .
13. The soda that contains caffeine is called *COLA* .
14. The three most common alcoholic beverages are beer, wine and *WHISKEY* .

Note: If there are more than 28 pupils in a class, the teacher may add statements and answer cards, divide the class into more groups, and make up duplicate answer cards.

Answer cards for *COME TO THE HEAD OF THE CLASS* to be cut out for student use (or the teacher can make own cards from 3 x 5 index cards).

Wine	Wine
Beer	Beer
Caffeine	Caffeine
Drunk	Drunk

Drug	Drug
Judgment	Judgment
Wedding	Wedding
Car	Car
Cola	Cola

Asleep	Asleep
Alcohol	Alcohol
Vision	Vision
Stagger	Stagger
Whiskey	Whiskey

GRADE 3

Objectives

Pupils will be able to identify:

1. the influence of alcohol on risk-taking behavior.
2. relationships between traffic accidents and alcohol consumption.
3. the influence of alcohol on coordination.

Content

Very early in life we begin to learn that there are thing we do not say or do either because they are wrong, or unsafe, or might affect the feelings of parents or friends toward us. However, alcohol affects the area of the brain which controls judgment, thus interfering with the power to think clearly and weakening self-control. After drinking, a person feels more at ease--less concerned about what other people think, willing to talk and act more freely--and may take risks which he would not take ordinarily, like starting a fight or driving too fast. When a person has difficulty controlling his behavior, his actions may result in injury or embarrassment to himself and others.

Injuries from traffic accidents are responsible for more deaths among school age children in the United States than any other single cause, such as cancer or heart disease. Sometimes these children are pedestrians; other times they are bicycle riders or passengers in cars. But children are not the only victims. Traffic accidents are a serious threat to people of all ages, killing almost 50,000 and causing nearly 2,000,000 serious injuries each year--that is, over 135 deaths and close to 5,500 serious injuries on the average day.

Studies to determine the reasons for the high number of traffic deaths found that nearly half the drivers involved in fatal accidents had been drinking. Furthermore, alcohol was not only the most important factor in fatal accidents, but also one of the most important in nonfatal accidents. Alcohol interferes with the judgment, vision and reaction time needed to drive safely, and thus increases the probability of an accident.

Alcohol is a drug which acts as an anesthetic causing temporary depression of the brain and nerves. As a result, the body and mind cannot perform as well as they do when sober.

Even a small amount of alcohol may impair judgment by interfering with the ability to understand, remember, make decisions and exercise self-control. Increased intake of alcohol dulls perceptions of sight and sound. In addition, motor coordination and reaction time are impaired so that quick and accurate responses may be impossible.

The more complicated a task, the more difficult it will be to accomplish after drinking; the more hazardous the task, the greater the potential consequences. The ability to write a composition, dial a telephone or play basketball will be diminished, but the results can be much worse for driving a car, climbing a ladder or operating a power mower after drinking to excess.

Teaching Techniques

1. *Land of Pans* -- A filmstrip about make-believe characters who learn a lesson about alcohol.

2. *Rebus Puzzle* -- A story relating to the *Land of Pans* filmstrip, requiring students to fill in words as indicated by pictures.

3. *Decode the Words* -- Using arithmetic skills to decode words about drinking.

4. *"I Learned"* -- A sentence-completion activity.

5. *Mini-Lecture and Demonstrations* -- The teacher gives a short talk on the relationship between traffic accidents and drinking alcohol, followed by demonstrations and simulations of the effects of alcohol on performance.

6. *Match-Up* -- A game in which two teams try to match words and make a sentence out of the matched word.

7. *Script Writing and Puppetry* -- Pupils write a script and create a make-believe character(s) for a puppet show.

Materials Needed

Land of Pans filmstrip (see pages 89-92 for narrative), filmstrip projector, cassette, cassette player.
Rebus Puzzle (Teacher's Copy with Answers, page 93)
Decode the Words (Teacher's Copy with Answers, page 97)
Notes for *Mini-Lecture* on traffic accidents and alcohol consumption, developed from Content on pages 86-87
Beer, wine and shot glasses, plus food dye
Spider (or other insect), goldfish, and two fishbowls
Ethyl alcohol, eyedropper
Match-Up: Cards and Game Board drawn on chalkboard (see pages 101-102)
Tongue depressors (or ice-cream bar sticks)
Stage for puppets
Handouts: 1) *Rebus Puzzle* (one copy for each pupil, page 94)
2) *Decode the Words* (one copy for each pupil, page 98)

3rd Grade - Lesson I

LAND OF PANS AND *REBUS PUZZLE*

Purpose: To provide pupils with a review of basic information about alcohol.

Objectives: Pupils will be able to identify:

1. the influence of alcohol on risk-taking behavior.
2. relationships between traffic accidents and alcohol consumption.
3. the influence of alcohol on coordination.

Materials Needed: *Land of Pans* filmstrip (see pages 89 - 92 for narrative), filmstrip projector, cassette, cassette player. Handout: *Rebus Puzzle* (one for each pupil, page 94).

Approximate Time: 30 minutes.

Description: "Today we will learn about alcohol and what it does to our minds and bodies. We'll talk about reasons some people drink and the problems that can arise when they drink too much.

"I'm going to show you a filmstrip about some make-believe characters who also will be learning about alcohol. The story is called *Land of Pans*."

The teacher shows the filmstrip to the class and starts a discussion by asking the children to describe what the filmstrip was all about.

The teacher distributes the *Rebus Puzzle*, explains the code at the bottom of the page, and with the class goes over the first sentence, filling in the appropriate words. Pupils are then asked to complete the story in class, or, if time does not allow, to do it at home.

Summary Statement: "We're going to be learning a lot about alcohol and traffic safety in the next few days."

LAND OF PANS

Once upon a time in a far away land on the other side of the mountain, beyond the Pana Sea, lay a beautiful wooded forest, hidden in a valley.

This land was inhabited by many unusual little people called Panacians. They were ruled by King Pan, noted for his great wisdom. Many years ago the Pans lived with the Habbits, in the caves on the other side of the mountain. But the Pans had different ideas and views on life so they moved into the valley. Here the Pans could live peacefully together, helping and protecting each other from harm.

They would frolic at day's end down at the "ole watering hole" called Hab Pan Pond. The pond lay at the base of the mountain separating the land of the Habbits from that of the Pans, just beyond what looked like an old graveyard of wrecked automobiles, piled three stories high, and known as Tin Pan Valley. The pond was the only place in the land shared by Pans and Habbits alike.

During the day, while their parents were busy at work, the little Pans went off to school to learn about the world on the far side of the mountain where the Habbits lived.

However, there were still many mysteries concerning the Habbits and why the Pans moved away by command of King Pan. Parents or teachers never discussed mysteries like the meaning of the automobile graveyard, except to say that the King erected the graveyard as a warning and reminder to older Pans of things that happened in the past.

Most of the Pans traveled to school by bus, all but Mikey who was the proud owner of a brand new shiny red pancycle. Mikey worked very hard for years, delivering newspapers, saving every penny he earned to buy his pancycle. Every day he would ride his red pancycle to school, around the pond and past the old graveyard, waving proudly to his friends as they passed him in the bus on their way to school.

But this morning was different. Something had happened to that shiny red pancycle and to Mikey who stood quietly at the bus stop with his arm in a sling and a bandage on his face. No one knew exactly what had happened, but none of the Pans had the nerve to ask him about it.

That day in school Mikey was not acting quite like himself as Ms. Monical, their teacher, began the day's lesson. "Today, class, we're going to learn about a drink made from grains or fruit, that the Habbits, from the other side of the mountain, drink. This beverage is called alcohol and it causes people to do things they wouldn't normally do. It can make you act silly or sleepy. If you drink too much alcohol it can even make simple tasks like walking or driving a car difficult and dangerous."

"Oh that couldn't really happen from drinking something," said Ki Ki. "Unfortunately it can," replied Ms. Monical, "but sometimes people don't believe what alcohol can do until it's too late and someone gets hurt."

With that, tears came to Mikey's eyes and he stood up and said that he would like to talk about what happened to him the day before so that other Pans could learn from his experience.

Mikey began his story. "Yesterday, after school, I had nothing to do so I went for a swim down at Hab Pan Pond. On the other side of the pond were some teenage Habbits swimming and laughing and making a lot of noise. They really looked as if they were having fun. After awhile, they called to me. I was all alone, so I swam over to see what they wanted. They seemed like nice kids, a little silly and loud, but OK. They even offered me something to drink. It was beer, and I had never tasted any before. I didn't know if I should take any. I'd heard about what it does, but I didn't want to hurt their feelings or make them think Pans were chicken.

"They were all drinking beer, so I tried a sip. I sat there waiting for something to happen to me, but I didn't feel anything different. The Habbits all seemed to be having so much fun, so when they handed me a whole bottle of beer, I took it and drank it.

"After awhile they started doing dumb things like breaking the empty bottles against rocks in the pond. A piece of glass flew back and cut one of the Habbits in the leg, but that didn't stop them. Then they were climbing the old oak tree and diving into the pond." "King Pan told us that was dangerous because the pond isn't that deep there," said Ki Ki. "Someone could get hurt." "I know, but at the time it seemed funny," said Mikey. "Even I jumped in and I've never done that before. A lot of things seemed funny then, but I know now it was the alcohol that made me think that and take the risks I did.

"By the time we all got up to go home, we could hardly walk. The Habbits all got into their Habmobile to drive home and crashed into a tree.

"They wound up driving their car into the pond. [class usually laughs] That might sound funny but one of them broke his arm and their Habmobile was wrecked. I wouldn't have wanted to be around when their parents found out what happened.

"I got up and walked around the pond to my pancycle. I kept tripping over rocks and branches as I walked.

"I got on my pancycle and tried to ride home. It was hard driving because I kept seeing double. As I was going around a curve I saw someone crossing the road.

"I tried to get out of her way and crashed into a tree. I was knocked off my shiny cycle. I was lucky I didn't seriously injure that little girl."

"That's terrible, Mikey, but I still don't understand how something you drink can cause you to do such things," said Ki Ki.

So the teacher explained. "Alcohol is a drug, like sleeping pills or cough medicine, and it puts part of the brain to sleep--the part with our judgment and good sense in it.

"When we drink alcohol it goes into our mouth, down our throats, through our esophagus to our stomach and intestines which act like a sponge, absorbing the alcohol and sending it directly into the blood stream to our brain. Our brain is like the body's control tower, sending messages to all parts of our body, telling us how to talk, giving directions to our muscles on how to move so we can walk and run, and reminding us of what rules and regulations to follow to keep us safe." "Like not breaking bottles against rocks in the pond," added Ki Ki.

"That's right, alcohol is a drug, and because it is a depressant it puts our brain to sleep like the ether a doctor uses before an operation. If someone drinks too much alcohol he can get drunk!

"He might have trouble seeing, as you did, Mikey. Or he might stagger and find it hard to walk. He could even have trouble driving a car and could cause a bad accident.

"So why would anyone drink alcohol? Some people drink because their friends are drinking." "They want them to like you and not think you are chicken," added Mikey. "Other people drink to celebrate a special occasion like a wedding or a party. Still others drink alcohol because they think it helps them to relax. The important thing to remember is that a little alcohol may not hurt a grownup, but drinking too much can cause problems, even danger."

"Like eating too many candy bars or ice-cream cones could make you sick," said Ki Ki. "Something like that, Ki Ki. Too much of anything isn't good for you, especially alcohol because you might lose your good sense and take risks that your wouldn't normally. Your vision and coordination are affected and riding a bike or driving a car could be dangerous."

"Boy, can it ever be dangerous! I wrecked my beautiful red shiny pancycle and almost killed myself and hurt that girl crossing the road."

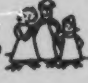
"Your great-grandparents many years ago found out the hard way about the effects of alcohol. Many Pans got hurt even worse than you, Mikey, and wrecked their Panmobiles after drinking alcohol. Many innocent people were hurt, too. That's why your parents moved to this side of the mountain. They hoped the new generations of Pans would never have to learn about alcohol the same way they did.

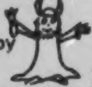
[Ring, ring, ring.] "Well, class, there's the bell. That's all we have time for today. Take care. I'll see you tomorrow and maybe we can learn some more about alcohol and how it affects us."

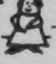
Mikey and his friends got on the bus to go home. When the bus passed the graveyard, they all became very quiet, as they noticed something red and shiny glimmering amidst the wreckage. The Pans turned to Mikey to see tears come to his eyes.

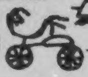
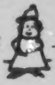
REBUS PUZZLE

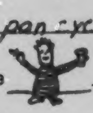
Fill in the blanks by writing the word(s) that describes each picture.

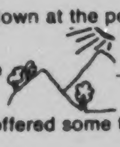
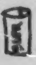
Our story tells us about some unusual people called the  pans

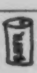
They were ruled by  King Pan, who was very wise.

One of the Pans, named  Mikey, worked very hard delivering newspapers,

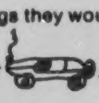
to buy a shiny red  pancycle. One day  Mikey

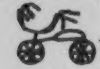
was down at the pond and met some  habbits from the other side

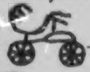
of the  mountains. They were all drinking  beer

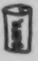
and offered some to Mikey. They drank too much  beer and began

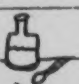
doing things they wouldn't normally do. The Habbits tried to drive after drinking too much beer and

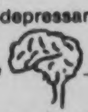
drove their  habmobile into a tree. Mikey tried to to ride his

 pancycle home and almost hit a girl crossing the road.

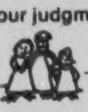
He crashed his  pancycle into a tree and got hurt. Mikey realized later

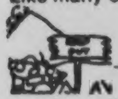
that it was the  beer that made him have trouble driving. Beer has a drug in it called

alcohol. Alcohol is a depressant, like  Cough medicine

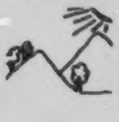
and it puts part of the  brain to sleep. It can affect your vision, the way

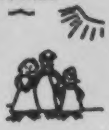
you move and your judgment. That's why too much alcohol makes driving dangerous.

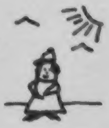
Like many older  pans whose wrecked mobiles lay in the mobile graveyard called

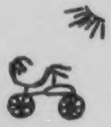
 Tin Pan Valley, Mikey found out the

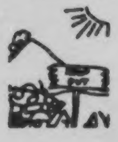
hard way that drinking and driving don't mix.

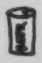

mountains

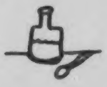

pans

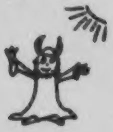

Mikey

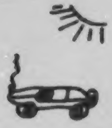

pancycle

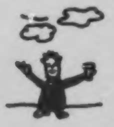

Tin Pan Valley

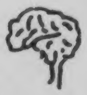

beer


Cough medicine


King Pan

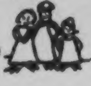

habmobile

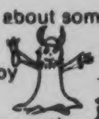

habbit

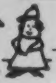

brain

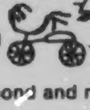
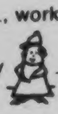
REBUS PUZZLE

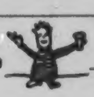
Fill in the blanks by writing the word(s) that describes each picture.

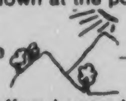
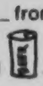
Our story tells us about some unusual people called the  ________________.

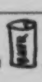
They were ruled by  ________ ________, who was very wise.

One of the Pans, named  ________________, worked very hard delivering newspapers,

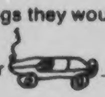
to buy a shiny red  ________________. One day  ________________

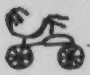
was down at the pond and met some  ________________ from the other side

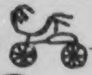
of the  ________________. They were all drinking  ________________

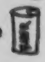
and offered some to Mikey. They drank too much  ________________ and began

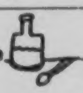
doing things they wouldn't normally do. The Habbits tried to drive after drinking too much beer and

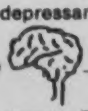
drove their  ________________ into a tree. Mikey tried to to ride his

 ________________ home and almost hit a girl crossing the road.

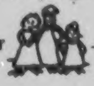
He crashed his  ________ ________ into a tree and got hurt. Mikey realized later

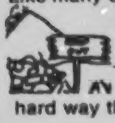
that it was the  ________________ that made him have trouble driving. Beer has a drug in it called

alcohol. Alcohol is a depressant, like  ________ ________

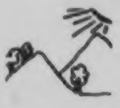
and it puts part of the  ________________ to sleep. It can affect your vision, the way

you move and your judgment. That's why too much alcohol makes driving dangerous.

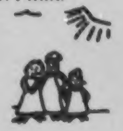
Like many older  ________________ whose wrecked mobiles lay in the mobile graveyard called

 ________ ________ ________ ________. Mikey found out the

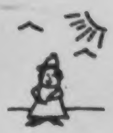
hard way that drinking and driving don't mix.



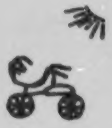
mountains



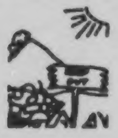
pans



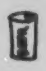
Mikey



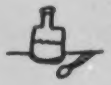
pancycle



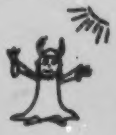
Tin Pan Valley



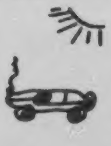
beer



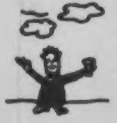
Cough medicine



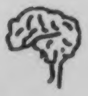
King Pan



habmobile.



habbit



brain

3rd Grade - Lesson II

DECODE THE WORDS AND *"I LEARNED"*

Objectives:	Pupils will be able to identify: 1. the influence of alcohol on risk-taking behavior. 2. relationships between traffic accidents and alcohol consumption. 3. the influence of alcohol on coordination.
Materials Needed:	Handouts: *Decode the Words* (one for each pupil, page 98)
Approximate Time:	30 minutes.

Description: "Let's review the *Rebus Puzzle*." (Have pupils try to read it aloud as a class or take individual turns one line at a time. During this exercise the teacher should elicit responses or make statements about concepts from *Land of Pans*. Examples are:

1. Mikey took chances (risks) like diving into the pond after he had been drinking beer.
2. Mikey had a bike accident and the Habbits had a car accident after drinking. Many Pans seemed to have had accidents in the past after drinking alcoholic beverages.
3. When Mikey was drinking he had trouble seeing clearly ((he saw double)), walking without staggering ((stumbling or zigzagging)), and controlling his bicycle.)

"Now we'll be detectives and decode the words by doing some arithmetic." (Distribute the *Decode the Words* handout. Put the first set of problems on the chalkboard and have class do it together.) "Look down at the bottom of the page to discover what letters the answer stands for and write them on the black line (DRU). Do the second problem and look for the letter that stands for (10). Put the letters together and they spell DRUG. Write DRUG on the line numbered one."

The pupils are then asked to do the rest of the sets of the problems by themselves. The teacher writes the rest of the sets of problems on the chalkboard while pupils are working. When they finish (5-10 minutes), the teacher goes over the problems on the board so that everyone now has all the words.

The teacher asks the pupils each to take out a piece of lined paper, write the words *"I learned"* on top, and complete each phrase by writing a separate sentence, using each decoded word.

Pupils write independently and then may share their sentences with the class. If time is short, pupils can speak their sentences without writing them.

Examples:

"I learned":

1) *alcohol is a drug.*
2) *beer, wine and whiskey all contain alcohol.*
3) *drivers who are drunk can have bad accidents.*
4) *when one has had too much to drink he or she may take worse risks.*
5) *driving is dangerous if you've been drinking alcohol.*
6) *if you drink too much, you may feel dizzy.*
7) *alcohol affects the way the brain works.*

"As a take-home assignment I'd like you to try to write a short skit (play) that involves drinking an alcoholic beverage and safety. Some ideas may be obtained from the *"I learned"* sentences. Hand the skit in tomorrow so that I may select some for a puppet show we'll be doing later on."

Summary Statement: "Today we've shown we've learned a lot about alcohol and its effects on people. Tomorrow we'll be doing some experiments that will demonstrate alcohol's effects on insects, etc." [The teacher asks for three volunteers, each to bring in a spider.]

Teacher's Copy with Answers

DECODE THE WORDS

$$\begin{array}{r} 412 \\ +\underline{138} \\ \underline{550} \\ \text{DRU} \end{array} \qquad \begin{array}{r} 21 \\ -\underline{11} \\ \underline{10} \\ \text{G} \end{array}$$

1. DRUG

$$\begin{array}{r} 40 \\ -\underline{16} \\ \underline{24} \\ \text{AL} \end{array} \qquad \begin{array}{r} 77 \\ -\underline{59} \\ \underline{18} \\ \text{CO} \end{array} \qquad \begin{array}{r} 64 \\ -\underline{22} \\ \underline{42} \\ \text{HOL} \end{array}$$

2. ALCOHOL

$$\begin{array}{r} 1175 \\ -\underline{625} \\ \underline{550} \\ \text{DRU} \end{array} \qquad \begin{array}{r} 471 \\ -\underline{387} \\ \underline{84} \\ \text{NK} \end{array}$$

3. DRUNK

$$\begin{array}{r} 232 \\ +\underline{196} \\ \underline{428} \\ \text{RI} \end{array} \qquad \begin{array}{r} 777 \\ +\underline{333} \\ \underline{1110} \\ \text{SKS} \end{array}$$

4. RISKS

$$\begin{array}{r} 32 \\ 24 \\ +\underline{17} \\ \underline{73} \\ \text{DRI} \end{array} \qquad \begin{array}{r} 55 \\ 10 \\ +\underline{26} \\ \underline{91} \\ \text{VING} \end{array}$$

5. DRIVING

$$\begin{array}{r} 109 \\ -\underline{36} \\ 73 \\ \hline \text{DRI} \end{array} \qquad \begin{array}{r} 21 \\ 21 \\ +\underline{42} \\ \underline{84} \\ \text{NK} \end{array}$$

6. DRINK

$$\begin{array}{r} 2431 \\ +\underline{6659} \\ \underline{9090} \\ \text{BR} \end{array} \qquad \begin{array}{r} 821 \\ +\underline{128} \\ \underline{949} \\ \text{AIN} \end{array}$$

7. BRAIN

24 AL	9090 BR	1110 SKS	42 HOL
18 CO	550 DRU	91 VING	10 G
84 NK	428 RI	73 DRI	949 AIN

DECODE THE WORDS

$\begin{array}{r}412\\+138\\\hline\end{array}$ $\begin{array}{r}21\\-11\\\hline\end{array}$

1. ______

$\begin{array}{r}40\\-16\\\hline\end{array}$ $\begin{array}{r}77\\-59\\\hline\end{array}$ $\begin{array}{r}64\\-22\\\hline\end{array}$

2. ______

$\begin{array}{r}1175\\-625\\\hline\end{array}$ $\begin{array}{r}471\\-387\\\hline\end{array}$

3. ______

$\begin{array}{r}232\\+196\\\hline\end{array}$ $\begin{array}{r}777\\+333\\\hline\end{array}$

4. ______

$\begin{array}{r}32\\24\\+17\\\hline\end{array}$ $\begin{array}{r}55\\10\\+26\\\hline\end{array}$

5. ______

$\begin{array}{r}109\\-36\\\hline\end{array}$ $\begin{array}{r}21\\21\\+42\\\hline\end{array}$

6. ______

$\begin{array}{r}2431\\+6659\\\hline\end{array}$ $\begin{array}{r}821\\+128\\\hline\end{array}$

7. ______

24 AL	9090 BR	1110 SKS	42 HOL
18 CO	550 DRU	91 VING	10 G
84 NK	428 RI	73 DRI	949 AIN

3rd Grade - Lesson III

MINI-LECTURE AND *ALCOHOL DEMONSTRATIONS*

Purpose: To have pupils apply problem solving techniques to situations involving alcohol use and traffic safety.

Objectives: Pupils will be able to identify:

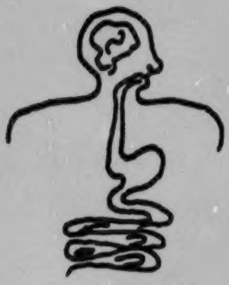
1. the influence of alcohol on risk-taking behavior.
2. relationships between traffic accidents and alcohol consumption.
3. the influence of alcohol on coordination.

Materials Needed: Note for *Mini-Lecture* (developed from Content, pages 86-87)
Spider (or other insect), ethyl alcohol, eyedropper, goldfish in bowl, extra fishbowl, dye (any color), beer, wine and shot glasses.

Approximate Time: 30 minutes.

Description: The teacher collects the skits written by children as a take-home assignment in order to select those to be performed at a later date.

The teacher gives a *Mini-Lecture* about alcohol, its effects and its relationship to traffic safety.



The teacher might compare the human brain to a control tower, drawing an outline of the body, brain and digestive system on the chalkboard. "The brain is our control tower, and if it functions well so does the rest of our body. The brain sends messages to our legs to walk, our mouths to talk and our arms and hands to do many things like catching a ball or writing a sentence. Now let's see what happens to our control tower when we drink an alcoholic beverage.

"The drink goes into our mouth, down our throat, through our esophagus and into our stomach and small intestines. It is here that the alcohol goes quickly through the walls of our stomach and small intestine into our blood stream. Our blood takes the alcohol up to our brain and this affects the way our "control tower" works. Its messages are no longer clear so we might walk funny (stagger) or talk funny (slur words), and we may even have blurred vision. We might not even be able to catch a ball or write sentences well.

"Let's see if we can demonstrate some of the effects of alcohol. First watch how the spider reacts when I touch him with a pencil. (The spider usually will dart away.) Now we'll put one drop of alcohol on him with this eyedropper. As it is absorbed into his body it goes to his brain." (Spider should crawl in a wobbly fashion and may even turn over on its back.)

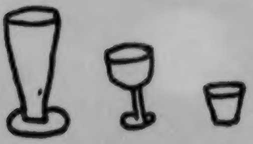
"What happened to the spider's control tower?"
He became drunk (intoxicated).

(The teacher should then briefly discuss drunkenness.)

"The spider will become sober again after he rests, so long as no more alcohol is introduced."

The effects of alcohol can also be demonstrated through a goldfish in an average sized fish bowl (1 gallon) and adding ½ ounce of 100% ethyl alcohol or one ounce of vodka or gin (80 proof). (The fish should begin to swim in a wobbly fashion, upside down, etc. The teacher then places the fish in a bowl of fresh water, and the fish eventually swims normally again. The teacher explains that it is not the fresh water that sobers the fish but the absence of alcohol. This example can be related to cold showers, etc. for humans.)

In yet another demonstration a child comes up front, is spun around and asked to walk in a straight line toward another pupil. The dizziness (that can follow) should be related to driving skills which are far more complicated than those needed for walking.



The teacher then places a beer, wine and shot glass on her desk, pours a ½ ounce of dyed water into each glass and fills the remainder with water. The teacher asks which glass has the most "alcohol" in it. If the dye represents alcohol, they all (beer, wine and whiskey) have the same amount of alcohol even though some are more diluted than others. Discussion follows of the implication of this fact.

Summary Statement: "Today we discovered through experiments how alcohol affects our actions, and we know it would not be good to drive a car, or ride a bike or do anything that requires good judgment, balance or vision after drinking too much."

3rd Grade - Lesson IV

MATCH-UP AND *SKITS*

Purpose: To have pupils apply problem solving techniques to situations involving alcohol use and traffic safety.

Objectives: Pupils will be able to identify:

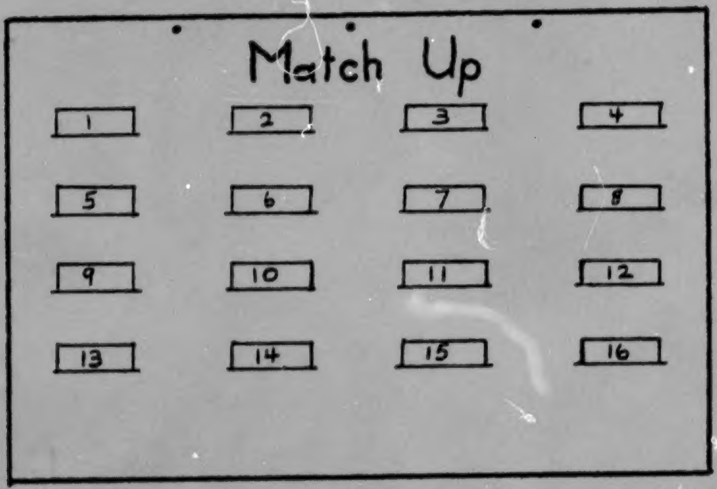
1. the influence of alcohol on risk-taking behavior.
2. relationships between traffic accidents and alcohol consumption.
3. the influence of alcohol on coordination.

Materials Needed: *Match-Up* Cards and Game Board drawn on chalkboard (see below), tongue depressors (or ice-cream bar sticks).

Approximate Time: 30 minutes.

Description: The teacher divides the class into two teams. *Match-Up* cards are on the spaces of the Game Board. Each card has a word on the other side and a matching word card somewhere on the board. The first player calls out two numbers, hoping to match the words on the other side of the card. If they don't match, the other team goes. When a match is made, that pupil must make a sentence of the word. The teacher may allow other pupils on the team to help construct the sentence. After a suitable sentence, a point is given to that team, and they continue until they miss a match. Then the other team goes. Play continues until all cards are matched. A second round can be played with the remaining eight words and their duplicate cards.

MATCH-UP GAME BOARD



Words used in *Match-Up:*

Alcohol
Vision
Drug
Judgment
Wedding
Car
Wine
Beer
Drunk
Whiskey
Risk(s)
Accidents
Sober
Unsafe
Balance
Too Much

The teacher distributes skits selected from those written by pupils as a take-home assignment for Lesson II, and collected by the teacher at the beginning of Lesson III. The teacher also gives pre-written skits (below) to groups of pupils. For these latter skits, situations will be given, along with the number and types of puppets needed. Children will role-play the situation without "scripts" by using their imaginations.

1) Situation: A teenager convinces an older friend to buy him some beer. The teenager drinks it, and then decides to ride his bike home through traffic.

   Puppets needed:

   1. Teenage boy on bike
   2. Older friend
   3. Car (representing traffic)

   Children needed to manipulate puppets: Three

2) Situation: A mother has a few drinks and drives her child to a birthday party.

   Puppets needed:

   1. Mother
   2. Child

   Children needed: Two

3) Situation: A man has had too much to drink. His wife is upset and refuses to make him any more drinks. She goes to bed. The husband continues to drink, lights a cigarette and falls asleep while it is still burning. Later their barking dog awakens the wife who sees smoke and flames. She wakes her husband and they both flee. A neighbor calls the fire department.

Puppets needed:

1. Man
2. Wife
3. Dog
4. Fireman
5. Neighbor

Children needed: Five

4) Situation: Two friends go out and have too much to drink. One calls a cab to take him home. The other gets into his car and tries to drive. He backs into another car and then goes through a red light. He falls asleep at the wheel and has an accident. His friend comes to visit him in the hospital.

Puppets needed:

1. Boy or Girl
2. Friend (can be a boy or a girl)
3. Cab Driver

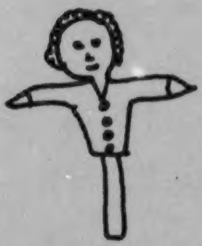
Children needed: Three

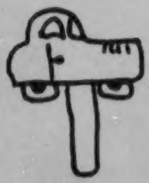
Summary Statement: As the teacher gives out skit and puppet assignments she says, "These skits will be performed during our next lesson. We will make puppets to be in the skits."

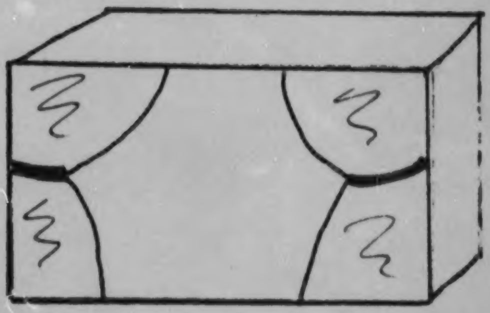
Note: Puppets can be made from construction paper pasted on a tongue depressor (or ice-cream bar stick) and drawn and colored with crayons. This can be done in school or at home.

A stage can be constructed (by the teacher or pupils) by cutting out a box and attaching paper or cloth curtains.

Samples:







3rd Grade - Lesson V

PUPPETRY

Objectives: Pupils will be able to identify:

1. the influence of alcohol on risk-taking behavior.
2. relationships between traffic accidents and alcohol consumption.
3. the influence of alcohol on coordination.

Materials Needed: Skits, puppets, stage.

Approximate Time: 30 minutes.

Description: The teacher asks each group to perform the skits assigned in Lesson IV. After each presentation the class is asked to decide what the moral of the story is. Discussion follows regarding suggested ways for dealing with the situations, with the teacher and pupils exploring the alternative solutions.

Summary Statement: "Now that we have completed all our lessons, let's review what we've learned."

Discussion Questions:

1) What happens to people when they've had too much to drink?
They show poor judgment, take risks, have blurred vision, become sleepy, have poor coordination, etc.

2) What are some skills they have trouble performing?
Walking, talking, seeing, riding a bike, driving, making good decisions.

3) How does this relate to traffic accidents?
Drivers who drink too much may take more risks, and have worse judgment and reaction time, and the combination increases their chances for accidents.

GRADE 4

Objectives

Pupils will be able to identify:

1. the influence of peers on drinking behavior.
2. the influence of adult role models on drinking behavior.
3. ways of achieving personal satisfaction without drinking.
4. appropriate or inappropriate actions that show respect, or lack of it, for a person's decision not to drink.

Content

Much of what we learn about life occurs through experimentation. We are curious; we try something new, and we like it or not like it. Some forms of experimentation are relatively safe, such as trying a new food or wearing "way out" clothing; others, such as drinking, are more risky because of the way they affect the body and mind.

Sometimes young people experiment with alcohol not only because they are curious, but also to be "in" with the crowd, and avoid being called "sissy" or "chicken." They feel uncomfortable if not part of the group. It is important to recognize that each individual is responsible for his own actions; that sound decisions require accurate information from reliable sources; and that the value of a friendship is questionable when it demands doing something risky, or something against our wishes and better judgment.

Children usually fashion their behavior after that of older youths and adults whom they admire, imitating actions which make them feel more mature--such as smoking and drinking coffee and alcohol, staying up late, doing household chores, helping someone in need. Children receive a variety of messages from what they observe in the behavior of adults. Some messages are accurate, positive and responsible. Others are not (such as those which suggest that a successful athlete or beautiful man or woman is associated with drinking, or that alcohol brings fun and friends).

Because our country is made of many cultures with differing values, messages from adults important in a child's life may be confusing, especially in relationship to drinking. This places the burden for responsible behavior on the individual, who must seek reliable information and then decide his own behavior.

Some people drink; some don't. Reasons for drinking may be positive, e.g., moderate use to relax or socialize. They may be negative, such as a means of temporary escape from stress. Unless one chooses not to drink at all, he must occasionally assess his drinking habits.

Whatever the reason for dinking, one should consider alternatives. To relax one can look at television, read a book, listen to music. One can socialize with friends while playing a game, dancing, going to a movie. Many nonalcoholic beverages are good thirst quenchers.

There are times when it is best not to drink, simply because the situation may require complex performance skills which are much less sharp under alcohol. Alert judgment and quick reflexes are needed to drive a car, ride a bicycle, walk in traffic, operate machinery, participate in sports, baby-sit. It is wise to avoid alcohol whenever it may be necessary to think clearly and act quickly. When faced with such situations, one should consider the possible consequences of slowed reactions before taking a drink. Other examples of what to avoid are drinking at places one has to drive to and from, or going out with acquaintances who have to drink, even get "high," to have any fun. Drinking to "show off" or escape reality is also dangerous.

Any situation which requires a decision related to drinking requires first a consideration of the alternatives and then the consequences of the choice. Although he may share his thoughts with the others, the individual must consider the risks and rewards, decide for himself, and then be responsible for his own behavior. It is inappropriate for those in a position to influence the drinking behavior of others to apply pressure to encourage or force young people to drink against their better interests.

Teaching Techniques

1. *Almost Everyone Does* -- A 14-minute film about the difficulties facing young people today, with illustrations of positive alternatives to drug use and abuse.

2. *Batter-Up/Alcoball* -- A baseball game with questions related to alcohol education and traffic safety.

3. *Free to Be* -- A filmstrip of pictures of nature and relaxing activities accompanied by taped music as a mood setter.

4. *Pupils' Lap Book* -- After viewing illustrations about nature while listening to music, pupils draw a picture of something they enjoy doing and write a description of it on a separate piece of paper. The teacher can then collate drawings and descriptions in a lap book for classroom use.

5. *Charades* -- Pupils mimic adult behavior as described on a card, and then decide if it is healthful or not.

6. *Slogans on your CB* -- Pupils complete a sentence or sentences to develop slogans about drinking or not drinking. CB sets can be built from boxes of various sizes so that pupils can "broadcast" their slogans.

7. *Values Voting* -- Pupils vote "yes" or "no" on such questions as "How many of you would drink an alcoholic beverage if your friends wanted you to do it?"

Materials Needed

Film *Almost Everyone Does* (14 minutes, see sound track, pages 110-112), projector and screen

Batter-Up/Alcoball Game Board drawn on chalkboard, question cards, player cards, Teacher's Question-and-Answer Sheet (pages 115-119)

Filmstrip *Free to Be*, filmstrip projector, cassette, cassette player

Drawing paper, crayons

Charade Cards with adult behaviors written on them (description on pages 123-125)

CB radio made from shoe box, small cereal box, string or wool, colored paper, paste, wooden spools, paper fasteners

4th Grade - Lesson I

ALMOST EVERYONE DOES

Purpose: To have the teacher and pupils review basic information about alcohol.

Objectives: Pupils will be able to identify ways of achieving personal satisfaction without drinking.

Materials Needed: Film *Almost Everyone Does* (14 minutes, sound track pages 110-112), projector and screen.

Approximate Time: 45 minutes.

Description: The teacher introduces the five lessons by telling the class that they'll be learning about alcohol, its effects on the mind and body and the ways our society deals with drinking.

"Let's watch a film that discusses the issue of drinking and see what we can learn."

The film *Almost Everyone Does* is shown, followed by discussion.

"People drink for a variety of reasons and some of these reasons may not be sound. What does *depressed* mean? *(sad, lonely)* Do you know that alcohol is a depressant? When one is sad or upset and drinks, it will not really help matters. Other ways of getting ourselves out of a bad mood are far better for us than drinking. Think of some of the positive things you do that make you feel good. (The teacher asks for examples. *Call a friend, play a game, turn on stereo, watch TV.*)

The teacher then raises discussion questions, eliciting answers from pupils:

1. What are some bad feelings people have? *(boredom, stress, anger; being lonesome, nervous, irritable, tired)*
2. Who has these feelings? *(Probably everyone at some time or other)*
3. From whom do we learn how to deal with these feelings? *(T.V., other media, peers, parents, brothers or sisters, heroes of sports, movie and T.V. stars)*

4. What are some unhealthy ways of dealing with bad feelings?
   (Fighting, taking drugs to feel better)

5. What types of drugs do some people take to feel better?
   (Aspirin, Martinis, tranquilizers, cigarettes, a "joint," pills, glue sniffing)

6. When is taking a drug dangerous?
   (When one takes too much, when it is the only way one deals with problems, when it becomes a habit, or when the drug is being misused for any reason)

7. What is a habit?
   (An action or behavior acquired through repetition without much thought)

8. What is dependency?
   (A tendency toward compulsive and repeated use of a substance that is psychologically and/or physically satisfying and needed)

9. What is the difference between drug use and abuse?
   (Drug use means taking drugs for beneficial and socially responsible reasons; drug abuse means taking drugs for negative and socially irresponsible reasons that usually increase personal and societal risk)

10. Are all drugs bad?
    (No)

11. In what ways can drugs be good for us?
    (Medicines, vitamins)

12. How else (other than through drugs) can we deal with bad feelings?
    (Making something, writing, building, talking to someone, sports, sailing a boat... If we do any of these things well, we can feel good about ourselves, leading to personal satisfaction which equals or surpasses the feelings some persons seek through drugs.)

Note: If time allows, the teacher can set up the teams for *Batter-Up/Alcoball* and discuss the rules described in Lesson II.

Summary Statement: "Today we've learned some things about alcohol and its effects as well as alternative ways to deal with unpleasant situations. Tomorrow we'll learn more in a game called *Batter-Up/Alcoball*."

SOUND TRACK FOR THE FILM

**Almost Everyone Does*

(Glue-sniffing boy) I first tried it because other youngsters were trying it. When I'd feel really bad about something, it was a way of getting to feel better. It seemed everyone I knew was taking something--whether sniffing glue, gasoline, smoking pot. It's not only young people who are taking something to feel better about things--almost everyone does.

(Narrator) How do we learn to deal with our feelings? On television everyone seems able to express them--to say what he feels.

But at home and everywhere else, it's not so easy for people to say what they feel--in fact they seem more interested in trying to change the way they feel, usually by taking something.

(Narrator, talking about boy's father) You might say this has become a fixed part of his day--kind of a habit. A Martini--nice and dry--after he comes home. It gives him a chance to relax--after that hectic pace he follows all day.

Everyday it's one problem or another at the office, and just the pace of life in the city.

The routine--it really gets at one.

His Martini when he gets home--it just somehow helps him relax, feel better.

(Narrator, talking about boy's mother) Smoking cigarettes--they help her feel better, help her keep her nerves under control.
Having a neighbor in, of course, that helps too.
But the idea that the housewife's life is an easy one--just isn't true.

---

*A 14-minute color film available from Wombat Productions, Glendale Road, P.O. Box 70, Ossining, New York 10562.

Part of her problem is doing the same boring thing--day in and day out. It gets so that the least little problem becomes very upsetting. And that's when she reaches for a pill--something to help her unwind. Most of her friends--it's pretty much the same with them.

(Narrator)

Whether we want to or not, we can't help hearing what products we should use...what foods we should eat, or what we should drink.
We also can't help hearing there are things people can take so they'll feel less nervous...tired... irritable--in other words, so they'll be *happy*.

Everyday we read the same thing; what people smoke, drink or take can change the way they feel.

(Narrator, talking about alcohol and drug abusers)

They too started by taking something so that they'd get to feel better. Every now and then a pill...a joint...a shot.
But all of these people became dependent on drugs: barbiturates...amphetamines...alcohol...nicotine... marijuana...LSD... heroin.
They became drug abusers--despite the dangers of ruined lives...sickness...addiction...death.

(Narrator)

Drugs have their good uses. When we're sick, they're the medicines that help us get better.
Other drugs--like vitamins--can help us stay well.
Vitamins are good for us but not because they make us feel better when we are unhappy about something.
When does a drug that changes the way a person feels become harmful or even dangerous?
One answer is: when taking that drug--whatever it is--becomes the way a person always deals with his problems...when he becomes *dependent* on the drug.
These men (alcoholics) started drinking to forget their problems, to get away from bad feelings. They got into a habit they couldn't break.
Every drugstore has many preparations to help a person relax, to help him fall asleep.
But most grownups know that always taking pills to calm nerves and fight depressed feelings can also become a habit.
Not only older people get bad feelings.

(Narrator, talking about boy)

Sometimes he thinks that only he gets blue feelings. Everyone seems to have all the friends in the world...but he doesn't really have any...sometimes he can't help but feel that his teacher picks on him and he can't understand why...sometimes he feels so bad he might want to cry but boys aren't supposed to cry...it's sissy stuff.

(Narrator)

All people have feelings--good feelings, bad feelings. It's the fact that they have feelings--even unhappy ones--that makes them know they're alive.
And yet many young people--like many older people--think that it's all right for them to take something to get rid of their bad feelings.
At first, it may be something like glue sniffing.

- Then it could be smoking marijuana or swallowing pills--

- or even something more dangerous, using heroin.

- They know there are laws against using some drugs. But they say their friends use them, why shouldn't they?
  They say almost everyone seems to be taking something to get rid of depressed feelings.

But not really everyone...
Our feelings help us decide to do the things we do; our good feelings *and* our sad or unhappy ones.
Because someone may feel bored, he may busy himself not by *taking* something but by making something, something that will give him a reason to be proud.
It may be an airplane now. Years from now it could be a book he (the boy) will write, a house he will build...even a bridge.

Out of the way we feel--the good feelings, the bad ones--ambitions are born...and so are dreams.

Even when our feelings may be quite terrible--is it better to *take* something--a drug that for a very little while may make the bad feeling go away? Or is it better to *do* something?
Yes, even such a thing as talking with someone about the way we feel.
Doing something can be a matter of enjoying being alone. It also could be doing something with others.
Doing is something as simple as sailing a boat.
Doing is also something as simple as making a friend.
Yes, there are things people can take to try and escape bad feelings. But how many other things do you think there are that people can *do* to *use* their feelings--all of them, the good and the bad--to bring lasting satisfaction to themselves...to others?

4th Grade - Lesson II

BATTER-UP/ALCOBALL

Purpose:	To have the teacher and pupils review basic information about alcohol.
Materials Needed:	*Batter-Up/Alcoball* Game Board drawn on chalkboard, question cards, player cards and Teacher's Question-and-Answer Sheet (pages 115-119)
Approximate Time:	45 minutes.

Description: The teacher introduces *Batter-Up/Alcoball.*

"Now we're going to play a game, *Batter-Up/Alcoball.*" The teacher divides the class into two groups and asks them to select names for their teams. The team that selects a name closest to the letter 'A' in the alphabet bats first.

Question cards are shuffled, and with the teacher as umpire, each pupil is given a player card. He places his name on it and is responsible for the movement of that card on the game board. Each player has a coach who is the next person up at bat and who can assist the player in answering the question, if necessary.

Each card in the deck has 1) a question, 2) a number which is the key to the answer on the teacher's answer sheet, and 3) the number of bases (based on degree of difficulty) the player moves if he answers the question correctly.

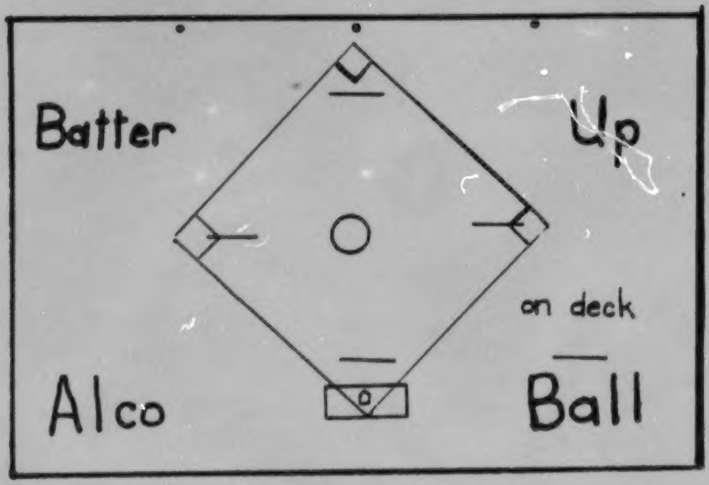
The batter comes up to the front of the class with his coach, and they place their name cards on home plate and on deck, respectively. The batter then draws a card from the deck and attempts to answer the question, with or without the help of his coach. If he answers correctly, he moves the number of bases the card indicates; if incorrectly, he is out, takes his card back to his seat, and the teacher indicates the out on the chalkboard. Or the batter may choose to pass, forcing the other team to answer the question. If they can answer, the batter is out; if not, he is "walked" to first base. The next batter follows the same procedure. Any player on base moves forward the number of bases indicated on the batter's card. If he comes home, he keeps his card and the teacher indicates a run on the chalkboard. Play continues until two outs are scored. Runs are added and posted for the first inning.

The other team comes to bat, and the game continues until the end of class, making sure both teams have had an equal opportunity to bat.

The teacher should take advantage of "teachable moments" as they come up after each question to clarify facts and practical applications. If time permits, *Batter-Up/Alcoball* can be played again during a later lesson.

Summary Statement: "I hope you've enjoyed this game while you learn more about alcohol and its effects on our minds and bodies."

BATTER-UP/ALCOBALL GAME BOARD



BATTER-UP/ALCOBALL

TEACHER'S QUESTION AND ANSWER SHEET

Question #1. Name an alcoholic beverage made from grapes.

WINE - SINGLE

#2. SPELL VISION. - SINGLE

#3. Name an alcoholic beverage that can be drunk from a can.

BEER - SINGLE

#4. When a person staggers, sees double and has had too much alcohol to drink, we say he is ___________.

DRUNK - SINGLE

#5. What does the word *beverage* mean?

SOMETHING TO DRINK - SINGLE

#6. Name three kinds of alcoholic beverages.

BEER, WINE, WHISKEY - SINGLE

#7. 9 X 9 = 81 - SINGLE

#8. When a baseball team has the field, how many positions are there to cover?

9 - SINGLE

#9. Name two habits that are hard to break.

BITING NAILS, SUCKING THUMB, SMOKING, DRINKING - SINGLE

#10. Name two baseball teams in New York. [Or choose local teams]

YANKEES, METS - SINGLE

#11. What color traffic light means GO?

GREEN - SINGLE

#12. Name two car safety rules.

USE SEAT BELTS, WATCH SIGNALS, OBEY SPEED LIMIT - SINGLE

#13. When you drink slowly, only a small amount at a time, you take a little ____________.

SIP - SINGLE

#14. What does a doctor write out for you to take to a drug store in order to get medicine?

PRESCRIPTION - DOUBLE

#15. What is the capital of the State of New York? [Or Local State Capital]

ALBANY - SINGLE

#16. Name two reasons why someone might drink alcohol.

LIKES THE TASTE, TO ENJOY FRIENDS, TO RELAX, TO HAVE FUN - SINGLE

#17. What is the danger of drinking alcohol?

BECOME SICK, HAVE A HANGOVER, HAVE AN ACCIDENT, MAY CAUSE DEATH - SINGLE

#18. What is an alternative (something that makes you relax or feel good) to drinking alcohol?

SPORTS, HOBBIES, READING, MUSIC - SINGLE

#19. Name two activities that might become harder to do after one has been drinking alcohol.

DRIVING A CAR, RIDING A BIKE, DOING COMPLICATED WORK, PLAYING SPORTS - SINGLE

#20. What does it mean to make a decision?

TO MAKE UP YOUR MIND - SINGLE

#21. How might one's behavior change after drinking alcohol?

ACT FUNNY, STAGGER, DO THINGS YOU WOULDN'T NORMALLY DO - SINGLE

#22. What does curious mean?

WANTING TO KNOW ABOUT SOMETHING - SINGLE

#23. Alcohol slows down the action of the brain and may even put one to ____________.

SLEEP - SINGLE

#24. What bodily function do we say has been affected when a person has been drinking too much and sees double?

VISION - SINGLE

#25. What do beer, wine and whiskey all contain?

ALCOHOL - SINGLE

#26. 235 + 235 = 470 - DOUBLE

#27. SPELL JUDGMENT - DOUBLE

#28. Does alcohol have to be digested like other foods or is it absorbed directly into the blood stream?

ABSORBED DIRECTLY - TRIPLE

#29. What is the opposite of sober?

DRUNK - DOUBLE

#30. Name a situation in which it might be dangerous for an adult to drink alcohol.

DRIVING A CAR, WORKING WITH TOOLS, ETC. - DOUBLE

#31. SPELL RESPONSIBLE - DOUBLE

#32. Name a place at which it might be safe for adults to drink alcohol.

AT A WEDDING, DINNER, CELEBRATION - DOUBLE

#33. When one has had too much alcohol to drink and walks crookedly, we say he is ___________.

STAGGERING - DOUBLE

#34. Is alcohol a stimulant or a depressant?

DEPRESSANT - TRIPLE

#35. What soda contains a drug?

COLA - TRIPLE

#36. What drug is in coffee, tea or cocoa?

CAFFEINE - TRIPLE

#37. What is the first function of the body to be affected by alcohol?

JUDGMENT - TRIPLE

#38. Is alcoholism a disease?

YES - SINGLE

#39. Name an alcoholic beverage made from hops.

BEER - HOME RUN

#40. Which beverage does not contain a drug--beer, wine, coffee, gingerale, tea or cola?

GINGERALE - HOME RUN

#41. State three behaviors a child learns from an adult?

SMOKING, DRINKING ALCOHOL, DRINKING COFFEE, DRIVING A CAR, SHAVING, PUTTING ON MAKE UP - DOUBLE

#42. What is a habit?

AN ACTION ACQUIRED THROUGH REPETITION WITHOUT MUCH THOUGHT. - TRIPLE

#43. What is the difference between drug use and abuse?

DRUG USE MEANS TAKING DRUGS FOR BENEFICIAL AND SOCIALLY RESPONSIBLE REASONS. - HOME RUN

DRUG ABUSE MEANS TAKING DRUGS FOR NEGATIVE AND SOCIALLY IRRESPONSIBLE REASONS THAT USUALLY INCREASE PERSONAL AND SOCIETAL RISK.

#44. When does a drug that changes the way a person feels become harmful or even dangerous?

WHEN TAKING THAT DRUG BECOMES THE ONLY WAY THE PERSON DEALS WITH HIS PROBLEMS, OR WHEN HE BECOMES DEPENDENT ON THAT DRUG. - TRIPLE

#45. What do we call it when one is proud of themselves and their achievements?

PERSONAL SATISFACTION - DOUBLE

Note: The teacher can develop more questions and answers as these seem appropriate for program objectives and pupil interests and needs.

4th Grade - Lesson III

FREE TO BE AND *PUPILS' LAP BOOK*

Objective: Pupils will be able to identify ways of achieving personal satisfaction without drinking.

Materials Needed: *Free To Be* filmstrip, filmstrip projector, cassette, cassette player.
Drawing paper, crayons.
CB radio made from shoebox, small cereal box, string or wool, colored paper, paste, wooden spools, paper fasteners.

Approximate Time: 45 minutes.

Description: The teacher introduces the *Free To Be* filmstrip and cassette by stating, "It's great to feel free to be yourself and do the things you enjoy and that make you feel healthy and happy. Let's look at some pictures that may put you in the mood and see how we feel when we are free to be you and me."

The filmstrip (with accompanying music*) then is shown.

The filmstrip shows a variety of scenes (beaches, mountains, playgrounds, a zoo) and is accompanied by music intended to elicit positive, healthy, relaxed feelings as one watches it. The scenes depict alternative activities to drug use/abuse. The mood set by the filmstrip is intended to lead into and serve the next activity, designing a lap book.

Discussion Questions:

1) How did you feel as you watched and listened? *Relaxed, good, happy.*

2) Why did you feel that way?

3) What were some pictures that made you feel extra good? Why?

4) What are some other things you'd like to have seen that make you feel good?

---

*with permission of The Free To Be Foundation, Inc., 370 Lexington Avenue, New York, N.Y. 10017.

"Close your eyes and fantasize what you'd like to do and where you'd like to be to feel happy and free. Let's each draw a picture of something we like to do that makes us feel special or good. Hold your paper across ▭ not up and down ▯." (Allow ten to fifteen minutes.)

The teacher may wish to replay the taped music while the class is drawing.

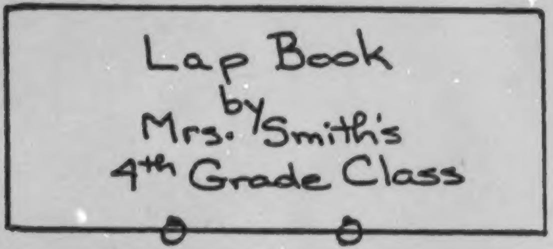
"Now on a separate sheet of paper write a story about the picture you've drawn and why it makes you feel special or good." The teacher should make sure that pupils use lined paper that goes ▭ not ▯.

(Allow ten minutes.)

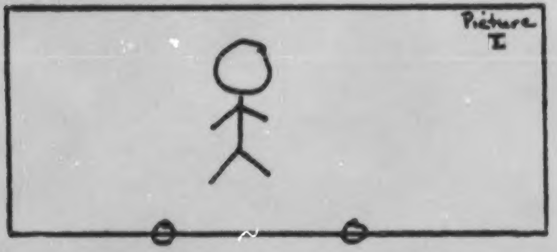
The teacher collects all pictures and stories and collates a lap book created by the class. If pupils do not finish in time, stories can be completed at home and collected at the beginning of the next lesson.

Making a lap book.

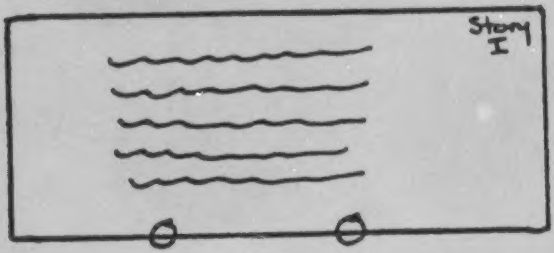
Make a title page.



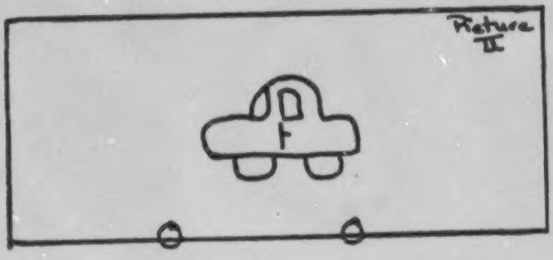
Paste first picture on back of title page.



Words to first picture begin new sheet of paper.

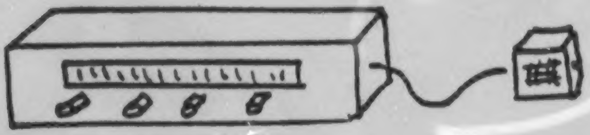


Paste picture of second story to back of words from first story.



Summary Statement: "Many activities help us to feel really special and good. I will put all of your drawings and stories together into a [*Pupils'*] *Lap Book*, and we will share this later. I'm asking for a volunteer(s) to help make a *CB radio* out of some materials I have." One or two pupils will volunteer to build a "CB set" out of a shoe box, with knobs of plastic or wooden spools, a speaker out of a small cereal box, all connected by strings or wool strips.

Example of CB Radio



Assignment: Have the class bring in an example of a slogan heard on T.V., radio, etc. If necessary, parents can be asked to help.

4th Grade - Lesson IV

CHARADES AND *SLOGANS ON YOUR CB*

Purpose: To have pupils judge the desirability of drinking or not drinking in certain situations.

Objectives: Pupils will be able to identify:

1. the influence of peers on drinking behavior.
2. the influence of adult role models on drinking behavior.
3. ways of achieving personal satisfaction without drinking.
4. appropriate or inappropriate actions that show respect, or lack of it, for a person's decision not to drink.

Materials Needed:
Charade Cards with adult behaviors written on them.
Paper and pencil.
CB Radio for *Slogans on Your CB.*

Approximate Time: 45 minutes.

Description: "Many times when we play such games as house, cowboys and Indians, war, etc., we make believe we're adults and try to act like them. For example, if I were trying to act out an activity of one of your parents, I would do this charade: (make believe you are typing) What activity was I acting out? Many young people try to imitate adult behavior in real life. However, there are some behaviors that are more desirable to imitate than others.

"I have some cards with me that describe various adult behaviors. Some of these are considered positive (good things to imitate) and others are considered negative (poor things to imitate). Choose a good or bad behavior card and come up and try to act out the behavior without talking. The rest of us will try to guess what behavior you are acting out, and then we'll discuss whether the behavior is good or poor to imitate."

One at a time, pupils will act out an activity described on the cards (examples listed below) and the class will try to guess the activity. The class will then determine whether the behavior is positive or negative, and the teacher then will list the activity on the board under the appropriate heading.

Charade Cards (3x5)

Positive Behaviors

Driving safely
Exercising
Being happy
Being handy (skilled) at building things
Sharing
Being clean
Being a good housekeeper
Being a good host/hostess

Negative Behaviors

Smoking
Drinking too much alcohol
Overeating
Nail biting
Hurting others
Being sloppy
Driving after drinking too much
Encouraging guests to drink too much
Making fun of friends

The teacher should take advantage of "teachable moments" in discussing the reasons each behavior is judged positive or negative. Particular attention should be given to such behaviors as:

1. being a good host. How can one be a good host? *(serve non-alcoholic beverages for those who choose not to drink, don't insist people drink, make everyone feel at ease at one's party whether they drink alcohol or not)*

2. encouraging guests to drink too much. Why could this be harmful? *(guest may become ill, knock things over if drunk, drive and get into an accident)*

"Now we have lists of behaviors that should be encouraged or discouraged. One of the ways that his could be done is through advertising by using slogans.

WHAT ARE SLOGANS?
Short statements to attract attention that give us a message.

WHAT ARE SOME FAMILIAR SLOGANS WE'VE HEARD ON TV OR RADIO, ETC.?
"Don't smoke, it's a matter of life and breath."
"If you drink, don't drive."
"Cross at the green, not in between."

"From what we've learned in these past four lessons, let's make up some new slogans that will help people live a happier, healthier life."

After pupils have had time to write their slogans they are asked to come up, one at a time, and broadcast their slogans over the CB radio. Slogans may also be developed in small groups, with an announcer selected to use the CB.

Hopefully some of their slogans may be such as:

1) *Too much of anything is no good.*
2) *Don't drink and drive.*
3) *It's okay if you choose not to drink.*
4) *It's great to feel free to be you and me.*
5) *Don't make fun of non-drinkers.*

Summary Statement: "Perhaps if we all listen to these slogans and try to follow them, our lives will be happier and healthier. We might share some of these slogans with our friends and families to help them live a better life."

4th Grade - Lesson V

VALUES VOTING AND *PUPILS' LAP BOOK*

Purposes: To have pupils:

1. judge the desirability of drinking or not drinking in specific situations;
2. apply problem solving techniques to situations involving drinking.

Objectives: Pupils will be able to identify the influence of peers on drinking behavior.

Materials Needed: *Pupils' Lap Book* (put together by the teacher with pictures and stories contributed by the pupils during Lesson III).

Approximate Time: 45 minutes.

Description: "We all have opinions and thoughts about a variety of things, and when these opinions and thoughts mean a great deal to us and what we do, we call them values. We get our values from parents, friends, experience, religious teaching and other sources. As an example, perhaps even at your age, you have begun to develop some values in relation to drinking and drugs.

"Let's do an activity called *Values Voting* to help us recognize our values. I will make a statement or ask a question, and if you agree with the statement or answer *yes* to the question, raise and wave your hand. If you disagree or answer *no*, stretch you hand forward, put your thumb down and hold it steady. If you're *not sure* , fold your arms across your chest. As an example, respond to 'I like carrots.'"

Note: Try to count the *yes* or *no* or *not sure* responses for each statement. Record responses on the chalkboard and briefly discuss the votes and their consequences.

1. How many of you would take an alcoholic drink if your friends asked you to?
2. I think it's okay to have a sip of wine or beer if one of my parents offered it to me.
3. When I grow up I will drink an alcoholic beverage *only* on a special occasion such as a wedding or other celebration.
4. If a person has had 3-4 drinks, he would still be a safe driver.
5. Most teenagers drink to "show off."

6. Most people drink because they think they'll feel better.
7. People think you're a sissy or chicken if you don't drink.
8. I would tell an adult if I thought he/she was drinking too much.
9. I'd feel like a real grown-up if I drank beer or wine.
10. I wouldn't feel embarrassed if I were the only one at a party who refused to drink.

Discussion Questions:

1) How many of you only made your decisions after your friends made theirs? Why?
Peer pressure.

2) In what other situations do your friends affect what you do or how you act?
Clowning in class, games you play, teams you root for.

3) How many of you had answers different from those of the majority of the class? How did you feel about this?
Different, proud, embarrassed.

4) How many of you changed your answers when you saw friends voting differently? If you changed answers, what does that tell you about your values?
They are not really mine, I don't feel strongly about them.

5) Why do you think some people choose to drink alcoholic beverages?
Be like their friends, act grown-up, because their parents do, it's fun.

6) Why do you think some people choose not to drink alcoholic beverages?
Don't like the taste, don't like to feel drunk, saw the trouble it can cause, know of better ways to have a good time.

7) What might you say if someone were trying to convince you to drink when you didn't want to?
I don't like the taste, I don't like how it might make me feel, I just don't care to.

Note: The teacher may add other questions as appropriate.

The teacher then presents the *Pupils' Lap Book* created by the class, and reads it to them.

How to Use *Pupils' Lap Book:*

Place book on lap with rings closest to body and with the title facing teacher so that when cover page is lifted, words are on lap (visible to teacher) and pictures are perpendicular to lap and readily visible to pupils.

Summary Statement: "We all have learned something about alcohol and the ways in which we decide how we would act in certain situations relating to drinking. Before we make a decision, we must think it through in terms of benefits and consequences. In our *lap book* we've seen some alternatives to drinking--things that make us happy without drinking. Perhaps we can share our *lap book* with the younger grades so that they can learn what to do in order to feel good. How many of you are in favor of this?"

GRADE 5

Objectives

Pupils will be able to identify:

1. the general reaction of the body and mind to alcohol in combination with other drugs.
2. reasons for variation of the influence of alcohol on different individuals under different conditions.
3. risks and rewards people perceive in drinking.

Content

People sometimes drink alcohol while they are on medication such as cold tablets, tranquilizers, or antibiotics. This is dangerous because alcohol has a more powerful effect when combined with other drugs. One alcoholic drink added to one dose of other drugs may be the equivalent of as many as three or four doses.

No two drugs should be taken at the same time unless they are prescribed or approved by a doctor. Alcohol in combination with other drugs may have increasingly negative effects on performance skills and alertness-qualities needed to drive safely. They may also act on the brain to produce a coma or slow the function of the heart and lungs enough to result in death. Some drugs remain in the body for long periods and, when alcohol is added, can cause serious effects hours or even days after they are taken.

One reason people drink is to change the way they feel. However, feelings under alcohol may vary from one moment to the next, and depend upon many things.

The way you feel before drinking and what you expect alcohol to do about that feeling helps determine whether drinking makes you happy, sad or angry. If a person is upset before he drinks, he may gulp them and have more than planned. The more alcohol consumed in a short time, the stronger and quicker will be the effects.

The kind of drink makes a difference too. Ounce for ounce alcohol in whiskey is more concentrated than in wine, and in wine it is more concentrated than in beer. However, beer, wine and whiskey have equal amounts of alcohol in servings of usual size. This means that the amount of alcohol which reaches the blood and the brain will be the same and so will the effects on the drinker after having a 12-ounce bottle of beer, or a five-ounce glass of wine, or a one-and-one-half ounce jigger of whiskey.

Food in the stomach also makes a difference. A drink after eating will have less effect than one before, since food slows down the rate at which alcohol is absorbed into the bloodstream. The smaller the person, the less blood he has to dilute the alcohol; therefore, someone weighing 100 pounds is likely to feel a stronger effect from one drink than another person weighing 200 pounds.

Experience makes a difference. A single drink may have less noticeable effect on someone with a longer history of drinking than on one who has recently started to drink (such as a teenager).

For some people alcohol can have beneficial effects when used in moderation in a special setting or on festive or ceremonial occasions. It can help people to relax and have a good time with family and friends.

However, alcohol is not without certain risks. When used improperly, it can threaten health, safety, family and social life. Regular, heavy drinking can have harmful effects on the body and mind, and the more one drinks the more the likelihood of suffering a serious accident. Alcoholic beverages are costly, have poor nutritional value and may take money which could be better spent on food or other essentials. Sometimes people who drink say and do things which cause problems with their family and friends.

Consideration of the risks and rewards is helpful in making a responsible decision to drink or not drink. When we consider that people react differently to alcohol and that there may be highly individual risks and rewards associated with drinking, it becomes apparent that the decision to drink or not must be made by the person himself after careful examination of his own circumstances. He should not be ridiculed for what he decides simply because it may not be what others want him to do.

Moderate drinking may heighten an experience for some people; others seldom or never use alcohol because they do not feel they need it to have fun. People can share good times while drinking nonalcoholic beverages, and they can feel relaxed or uplifted through sporting activities, dancing, hobbies, talking, eating or watching television. If drinking is an end in itself, it usually does not promote personal or social well being.

For some people, because of the way drinking influences their behavior, it may interfere with having a good time. It is a good idea for people to try to figure out why they drink; and if they are dissatisfied with the reason, to try to find a substitute for drinking.

Teaching Techniques

1. *Alcohol: How Much Is Too Much?* -- An 11-minute film demonstrating the marked effects of alcohol on a fish, with generalizations on the human condition, helping the pupils to understand how and why alcohol affects the body and brain.

2. *Jeopardy* -- The teacher reads an alcohol question from one of five categories. The pupils, divided into teams, take turns attempting to give the correct answer to the question. The first team to answer the question correctly gains the point value of that question. If incorrect, the question is given to the next team to try.

3. *Jungle Jamboree* -- Pupils complete a worksheet describing various situations in which make-believe animals drink alcoholic beverages. Taking individual differences into consideration, the pupils must give the correct answers to questions relating to the effects of alcohol on the animals.

4. *Purple Mystery* -- The hazardous effects of combining alcohol and other drugs are demonstrated through art. Pupils draw and color an animal and discuss the characteristics of their special animal. They then color over their animal with purple crayon (representing the introduction of alcohol and other drugs into the body), and discuss the effect. They then begin to scrape off the purple crayon (which takes time, as does eliminating drugs from our system), and discuss what happens to the color and characteristics of the animal as the purple is removed.

5. *Risks Ratio* -- Pupils "brainstorm," list and discuss alleged advantages and disadvantages of drinking.

6. *"Rights" and "Responsibilities" Buttons* -- Pupils write a brief paragraph about their rights and responsibilities in relation to alcohol use. Those they most believe in are made into buttons and worn.

7. *Role Play* -- Pupils act out "rights" situations pertaining to alcohol.

8. *Joey and Me* -- A 15-minute film which stimulates discussion of the role of peer pressure in drinking.

9. *Let's Have a Party* -- Pupils describe a party, including activities and foods they enjoy without alcoholic beverages.

Materials Needed

Film: *Alcohol: How Much Is Too Much?* (11 minutes, sound track on pages 136-137), projector and screen
Film: *Joey and Me* (15 minutes, sound track on pages 159 -161), projector and screen
Teacher's *Jeopardy* Question-and-Answer Sheet (page 138)
Jeopardy Question Cards and Game Board drawn on chalkboard (page 134)
Jungle Jamboree: Detective Worksheet, Teacher's Copy (pages 146-150)
Heavyweight, corrasible typing paper or ditto paper
Purple crayons, and range of other colors
Tongue depressors (or ice-cream bar sticks)
Chalkboard and chalk
Small circles for *Rights and Responsibilities Buttons* (page 156)
Scissors, safety pins
Handouts: 1) *Jungle Jamboree: Detective Worksheet* (one copy for each pupil, pages 143-145)
2) *Jungle Jamboree: Description of Animals* (one copy for each pupil, pages 141-142)

5th Grade - Lesson I

ALCOHOL: HOW MUCH IS TOO MUCH? AND *JEOPARDY*

Purpose: To review basic information about alcohol.

Objectives: Pupils will be able to identify:

1. reasons for variations of the influence of alcohol on different individuals under different conditions.
2. risk and rewards people perceive in drinking.

Materials Needed: Film: *Alcohol: How Much Is Too Much?* (11 minutes, sound track on pages 136-137), projector and screen.
Teacher's *Jeopardy* Question-and-Answer Sheet (page 138).
Jeopardy Question Cards and Game Board drawn on chalkboard (page 134).

Approximate Time: 45 minutes.

Description: The teacher introduces *Alcohol: How Much Is Too Much?* explaining that the film will review some basic information about alcohol, its use and effects. The teacher may wish to ask some questions to see how much the students remember.

Discussion Questions:

1) What is an alcoholic beverage?
It is a drink that contains a drug called alcohol.

2) Name some alcoholic beverages.
Beer, wine, whiskey, etc.

3) Why do some people drink alcoholic beverages?
To celebrate, forget problems, enjoy with dinner.

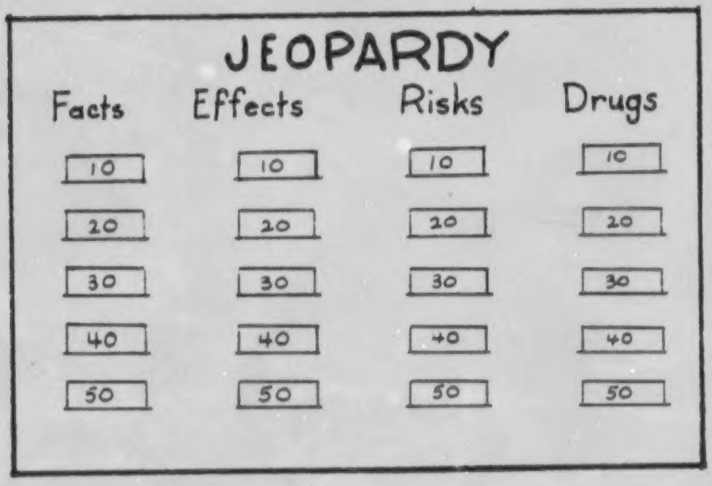
4) How does alcohol affect one's behavior?
It can make people do things they would not normally do. Because it is a depressant that puts part of the brain to sleep, our judgment, self control, vision and muscle coordination are affected.

5) Can you think of reasons why alcohol affects a person differently at different times?
Food in stomach, speed of drinking, mood.

"We are going to see a film that reviews some facts about alcohol. After the film we will play a game called *Jeopardy* and try to answer some questions relating to these facts. Pay attention to the film so you'll know the answers."

The teacher shows the film and may wish to discuss some of the major points before playing *Jeopardy*.

"We have just seen a film that gave us a great deal of information about alcohol, and its effects. Alcohol, like all drugs, can harm us when misused. Let's see how much we know about alcohol by playing a game called *Jeopardy*. It's similar to the TV game show which some of you may have seen, although I've changed the rules somewhat. The object of the game is to score as many points as you can for your team by giving the *correct* answer to the questions on the game board. The questions are divided into four categories--Facts, Effects, Risks, Drugs."



Each question has a different point value, depending on difficulty. The teacher divides the class into three or four teams and chooses a question card as an example. The first team picks a category and point value under it.

The teacher reads the question in the selected box of the game board. That team tries to answer the question. Teammates can discuss the answer. If they are correct, they receive the point value of that answer and go on to pick the next question. If incorrect, the question is repeated until either one team responds correctly or all teams have passed. Then the teacher gives the correct answer.

The game ends either when questions from all categories have been read or the predetermined time has run out. The team with the most points wins. The teacher should take advantage of "teachable moments" throughout the game to explain answers as appropriate. If time permits, the game can be played again during a later lesson.

Summary Statement: "We have learned that alcohol is a drug with a variety of effects upon individuals and that too much alcohol is no good. In our next lesson we will see the effects of alcohol on some unusual animals, and we will have an opportunity to become detectives for a day."

SOUND TRACK FOR THE FILM

**Alcohol: How Much Is Too Much?*

From one point of view there are two machines in this picture, for people require fuel to produce energy just as machines do. But no machine is nearly as fantastic as the human body. The body acquires its energy from a very complex combination of fuels, which are taken from many sources. With our machines we're very careful to put in only exactly the right fuel. But what about ourselves? Not satisfied with what we need, we fill up with practically anything, whether it's good for us or not.

Alcohol is one of the non-fuel extras people take, but it can cause a lot of trouble if we take too much. *How much is too much?* Perhaps on a warm afternoon you've noticed someone getting sleepy after drinking a few beers. The alcohol in beer is a drug which affects the functioning of the body. There are drugs--chemicals which affect us--in many substances we take into our bodies. Most of these are not healthy. But usually the chemical is contained in such a very small amount that there is no immediate dangerous effect on our health. The alcohol in beverages is a type called ethyl alcohol. Like other drugs it is often used in medicines such as cough syrup. But completely apart from its use in medicine, some people drink alcohol because they enjoy it. People have been drinking it for thousands of years. But when misused, any substance can be harmful. Alcohol is not just any substance. It is a very powerful drug and sometimes some people drink too much. *How much is too much?*

As a first step to an answer, let's see how alcohol affects a fish. If we add alcohol to the water, as the fish breathes, the alcohol will enter his blood stream. We will not give him enough to kill him, but he will probably have a very bad headache when he recovers. Relative to its size we are giving the fish about the same amount of alcohol which would intoxicate a one-hundred-fifty-pound man. The overall effect of alcohol is described as intoxication or, in more everyday terms, drunkenness. Whatever we call it, it's pretty obvious that friend fish has had too much. *How much is too much?*

Let's look again at what happens when alcohol is taken into the human body. On reaching the stomach, alcohol is not digested. It passes through the walls of the stomach and small intestine into the blood stream and then into the brain. When a man weighing one hundred fifty pounds takes one drink containing one-half ounce of alcohol, the alcohol reaching his brain begins to affect his ability to make decisions. With three drinks, reaction time and coordination are impaired. After five drinks he has trouble walking and standing. If our one-hundred-fifty-pound man goes as high as twenty drinks containing one-half ounce of alcohol each, he will lose consciousness. And if he could consume twenty-five before he passes out, he might die. Continued heavy use of alcohol destroys tissue in the brain, the kidneys and the liver.

---

*An 11-minute, semi-animated color film available from Film Fair Communications, 10900 Ventura Boulevard, Studio City, California 91604, or AAA Foundation for Traffic Safety, 8111 Gatehouse Road, Falls Church, Virginia 22047.

Some people develop a disease called alcoholism. They develop a dependency on alcohol and seek to be frequently or continually intoxicated. The continuing need for alcohol not only destroys their health but creates terrible problems with family and work. Some alcoholics leave life behind and think of nothing but the next drink. But the long-term effects of heavy drinking are not the only dangers of alcohol. Each and every time a person drinks, he must respect the powerful nature of alcohol. A little too much and the effect of alcohol can cause him to be a problem and a nuisance to others. At worst, a little too much at the wrong time and the effects of alcohol can lead to tragedy.

The misuse of alcohol may be caused by a number of personal, emotional, and social problems. But alcohol is not often misused by a person who is mature enough to respect himself and others, and who has enough information to give him a healthy respect for the power of alcohol. The decision to drink or not to drink is a decision which each individual must make for himself. When a person decides to join those who drink alcoholic beverages, there are other facts about alcohol which it is very important to know.

Alcohol has different effects on different people at different times. Alcohol taken on an empty stomach will affect the drinker more quickly because it can be absorbed more readily by the stomach and intestinal walls. Generally, a large person, compared with a smaller one, will show less effect from the same amount of liquor, simply because he has more blood in which the alcohol is diluted. The period of time over which alcohol is consumed varies the effect on the drinker. Three drinks in one-half hour will make one much more intoxicated than three drinks in two hours. But whatever the variables may be, even a small amount of alcohol has an effect on the drinker, and he must exercise his judgment as to where and when he drinks, and--most important--to know *how much is too much.*

Some day you must make the decision whether you will be one of the millions of people who do not drink or one of the even more millions who do. A shot of whiskey, a cocktail, a glass of wine, a glass of beer--each of these contains about the same amount of ethyl alcohol--about one-half ounce--a powerful drug that changes the way the body functions. The human body, just as a machine, will not function well with too much of the wrong kind of fuel. Alcohol is dangerous when misused. It must be used with respect and maturity. When the time comes, if you decide that you shall be one who drinks, that's not the really big decision that requires maturity. With alcohol all the little decisions are really big ones. For if a person has respect for himself and others, every time he drinks he must be aware that the drink in his hand contains a drug; and every time he drinks, he must make the decision about *how much is too much.*

TEACHER'S *JEOPARDY* QUESTION-AND-ANSWER SHEET

Points	FACTS	EFFECTS	RISKS	DRUGS
10	Is alcohol a stimulant or a depressant? *Depressant*	Who would usually feel the effects of alcohol more, a 100 lb. person or a 200 lb. person? *100 lb. person*	Name two situations where it might be dangerous to drink alcohol. *Driving, bike riding, working, walking in traffic*	Name two beverages that contain caffeine. *Coffee, tea, cola, cocoa.*
20	Which contains more alcohol? One can of beer, one glass of wine or one shot of whiskey? *They all contain the same amount.*	Name three ways a person might act if drunk (intoxicated). *Stagger, slurred speech, silly, show poor judgment.*	What is responsible for the most deaths to school-age children? *Traffic Accidents*	Name three drinks that contain alcohol. *Beer, wine, whiskey, cocktails, champagne, gin, vodka.*
30	What kind of alcohol is found in an alcoholic drink? *Ethyl*	What is the only thing that can sober up someone who is intoxicated? *Time*	Name two risks of drinking too much. *Accidents, get drunk, pass out, death.*	What is the most abused drug in the United States? *Alcohol*
40	Name an organ or part of the body affected by drinking alcohol. *Brain, kidney, liver, heart.*	What is the first thing affected by drinking alcohol? *Judgment*	Name two diseases or disorders that can be caused by drinking too much. *Alcoholism* *Cirrhosis of the liver* *Gastritis* *Malnutrition* *Gastric ulcers* *Alcohol Fetal Syndrome*	Which beverage does not contain a drug? Coffee, tea, beer, cola, ginger ale, wine. *Ginger ale*
50	How does alcohol get into the bloodstream? *Absorbed directly.*	What are two factors that change the effects of alcohol on an individual? *Body size, food in the stomach, mood, speed of drinking.*	Why is drinking and driving more dangerous for teenagers? *They have less experience in drinking and less experience in driving and less experience in the combination.*	What do alcohol and sleeping pills have in common? *They are both depressants and can put you to sleep; more so if combined.*

5th Grade - Lesson II

JUNGLE JAMBOREE

Objectives: Pupils will be able to identify:

1. the general reaction of the body and mind to alcohol in combination with other drugs.
2. reasons for variations of the influence of alcohol on different individuals under different conditions.

Materials Needed: *Jungle Jamboree: Detective Worksheet* (Teacher's Copy, pages 146-150).
Handouts: *Jungle Jamboree: Description of Animals* (one copy for each pupil, pages 141-142).
Jungle Jamboree: Detective Worksheet (one copy for each pupil, pages 143-145).

Approximate Time: 45 minutes.

Description: The teacher begins with a short lecture on the combined effects of alcohol and other drugs. "In mathematics we are sure that when we add 1 + 1 we get 2. This is a fact that remains stable; nothing can change it. However, the effects of drugs on people are more complex.

"Because each person is different in some way from every other person, we cannot be sure of the total results when the food and beverages we take into our bodies are combined. Moreover, foods that one person may thrive on can find others allergic. Drugs have different effects on different people as well as on the same person in different situations. There are many factors that contribute to the effects of alcohol on an individual."

The teacher then asks the pupils to try to answer the following questions:

> "What factors influence the effects of alcohol on different individuals under different conditions?"

The teacher asks the class to call out possible answers, and she lists all on the chalkboard as they are called, making no judgment regarding correctness.

1) reasons they're drinking
2) way they felt before drinking (happy, sad, angry)
3) type of drinks
4) other food in the stomach
5) individual's weight

6) *how much and how fast they are drinking*
7) *experience in drinking*
8) *other drugs taken about the same time*

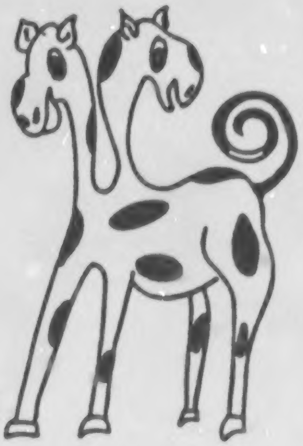
The teacher may add factors not mentioned and discuss any that the group does not agree with or understand.

The teacher then introduces pupils to the Fleegs, Broogs, Gorks and Ribbits by distributing and reading *Jungle Jamboree: Description of Animals* (pages 141-142). The teacher distributes *Jungle Jamboree: Detective Worksheet* (pages 143-145) to the class and may wish to do the first questions with the entire class. Each pupil is then to complete a copy of the *Detective Worksheet.* After all class members have completed the assignment, the teacher asks the discussion questions from the Teacher's Copy of the *Detective Worksheet* (pages 146-150), using "teachable moments" to add information as appropriate.

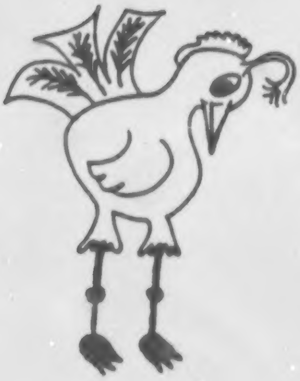
JUNGLE JAMBOREE: DESCRIPTION OF ANIMALS

There was a jungle jamboree last weekend. Animals of all sizes and shapes came from all over the world to celebrate with music, food, drink and many games. There were Fleegs from Finland, Broogs from Bolivia, Gorks from Greenland and Ribbits from Romania.

Fleegs are two-headed animals who weigh 100 lbs. and eat trees and grass and other greenery.

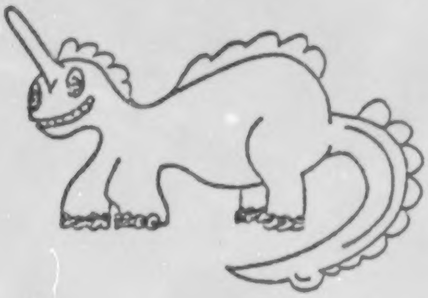


Broogs are little fellows weighing only about 50 lbs. They thrive on fruits and berries.

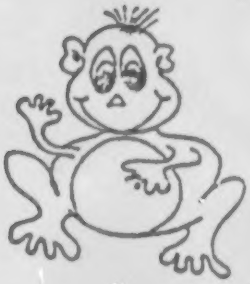


JUNGLE JAMBOREE: DESCRIPTION OF ANIMALS (Con't.)

Gorks are the largest of the animals at the jamboree, weighing at least 200 lbs. They enjoy eating almost anything.



Ribbits are little green fellows who weigh only 25 lbs. and are one foot tall. They love to eat lily pads and insects and love to swim.



Pupil Copy

JUNGLE JAMBOREE: DETECTIVE WORKSHEET

See if you can figure out the answers to the following problems:

I The animals had a party the first night of the jamboree. There were music and dancing and refreshments.

The Fleeg had three beers in two hours.
The Broog had three beers in two hours.
The Gork had three beers in two hours.
The Ribbit had three ginger ales in two hours.

1. Which animal was most affected by his drinks?

Check one:

Fleeg	
Broog	
Gork	
Ribbit	

II The next day all the Fleegs went to a reunion picnic where they ate, drank and played games.

Fritz Fleeg was delighted at all the beautiful green trees and grass and ate large quantities of both. After eating he drank two glasses of wine in one hour. Fritz's cousin Frances Fleeg didn't like trees but ate large quantities of grass and leaves. She also drank two glasses of wine in one hour. Frank Fleeg wasn't very hungry, so he didn't eat any of the food offered him, but he did drink two glasses of wine in one hour.

1. Which Fleeg probably felt the most effect from the two glasses of wine?

Check one:

Fritz	
Frances	
Frank	

III The Broogs also had a reunion picnic. After a good lunch they played games, told stories and socialized.

Betty Broog spent most of her time talking with other Broogs she hadn't seen in years. She sipped the drinks she was given and had two scotches which lasted through the entire picnic.

Brett Broog, on the other hand, arrived very late, so he ate and drank everything at a fast rate. He also consumed two scotches before the picnic was over.

Bernadette Broog was a quiet sort who enjoyed listening to the stories others told. She was content to sip her two scotches which lasted through the entire picnic.

1. Which Broog was most affected by the drinks?

Check one:

Betty	☐
Brett	☐
Bernadette	☐

IV After eating lunch at the same Broog party, Benjamin Broog, who had never drunk anything but berry juice in all his 18 years, decided to try a beer. Even before he was finished, he began to feel silly and a little dizzy. Why do you think this happened to Benjamin?

Check one:

He had not had enough to eat	☐
He was an inexperienced drinker	☐
He drank too fast	☐

V That night all the Gorks got together for a jamboree.

George Gork drank one 12 oz. can of beer in one hour.
Geoffrey Gork drank one 1½ oz. glass of whiskey in one hour.
Gertrude Gork drank one 5 oz. glass of wine in one hour.

1. Which Gork was most affected by his/her drink?

Check one:

George	
Geoffrey	
Gertrude	
All the same	

VI Gregory Gork was at the jamboree even though he was feeling a little under the weather. He had been taking medication for an ear infection. Gregory decided to have a drink of scotch to perk himself up. By the time he finished his drink he began to feel as if someone hit him with a ton of bricks. He felt as though he had drunk three or five scotches. His arms and legs began to feel as heavy as tree trunks, and he just wanted to sleep. Why do you think he felt this way?

Check one:

Gregory combined alcohol and other drugs	
Gregory drank scotch	
Gregory was depressed	

Teacher's Copy

JUNGLE JAMBOREE: DETECTIVE WORKSHEET

See if you can figure out the answers to the following problems:

I The animals had a party the first night of the jamboree. There were music and dancing and refreshments.

The Fleeg had three beers in two hours.
The Broog had three beers in two hours.
The Gork had three beers in two hours.
The Ribbit had three ginger ales in two hours.

1. Which animal was most affected by his drinks?

Check one:

Fleeg	
Broog	✓
Gork	
Ribbit	

Discussion Questions:

1. Why did you think the animal you picked was affected more by what he/she drank?
   Broog was smaller than the others.

2. How do you feel about Ribbit's choice not to drink an alcoholic beverage?
   A person's decision not to drink should be respected.

3. What might the other animals say to the Ribbit?
   Oh, come on and have a drink!

4. How would you feel if you were the Ribbit?
   Good.

5. What would you say if they tried to make you drink?
   I don't want to drink.

II The next day all the Fleegs went to a reunion picnic where they ate, drank and played games.

Fritz Fleeg was delighted at all the beautiful green trees and grass and ate large quantities of both. After eating he drank two glasses of wine in one hour. Fritz's cousin Frances Fleeg didn't like trees but ate large quantities of grass and leaves. She also drank two glasses of wine in one hour. Frank Fleeg wasn't very hungry, so he didn't eat any of the food offered him, but he did drink two glasses of wine in one hour.

1. Which Fleeg probably felt the most effect from the two glasses of wine?

Check one:

Fritz	
Frances	
Frank	✓

Discussion Question:

1. Why did you check the Fleeg you did?
Frank drank on an empty stomach and alcohol is absorbed more quickly when there is no food in the stomach.

III The Broogs also had a reunion picnic. After a good lunch they played games, told stories and socialized.

Betty Broog spent most of her time talking with other Broogs she hadn't seen in years. She sipped the drinks she was given and had two scotches which lasted through the entire picnic.

Brett Broog, on the other hand, arrived very late, so he ate and drank everything at a fast rate. He also consumed two scotches before the picnic was over.

Bernadette Broog was a quiet sort who enjoyed listening to the stories others told. She was content to sip her two scotches which lasted through the entire picnic.

1. Which Broog was most affected by the drinks?

Check one:

Betty	
Brett	✓
Bernadette	

Discussion Question:

1. What was your reason for choosing the Broog you did?
Brett drank at a fast rate and didn't give the alcohol a chance to be eliminated from his body.

IV After eating lunch at the same Broog party, Benjamin Broog, who had never drunk anything but berry juice in all his 18 years, decided to try a beer. Even before he was finished, he began to feel silly and a little dizzy. Why do you think this happened to Benjamin?

Check one:

He had not had enough to eat	
He was an inexperienced drinker	✓
He drank too fast	

Discussion Question:

1. Why do inexperienced drinkers or teenagers feel the effects of alcohol more quickly than people who have more experience?
Inexperienced drinkers are unfamiliar with the effects of alcohol. The body is not used to alcohol. They are most often younger and smaller so the effects may also be greater because of size.

V That night all the Gorks got together for a jamboree.

George Gork drank one 12 oz. can of beer in one hour.
Geoffrey Gork drank one 1½ oz. glass of whiskey in one hour.
Gertrude Gork drank one 5 oz. glass of wine in one hour.

1. Which Gork was most affected by his/her drink?

Check one:

George	
Geoffrey	
Gertrude	
All the same	✓

Discussion: A 12 oz. can of beer = 1½ oz. of whiskey = 5 oz. glass of wine, so each Gork probably felt similar effects.

VI Gregory Gork was at the jamboree even though he was feeling a little under the weather. He had been taking medication for an ear infection. Gregory decided to have a drink of scotch to perk himself up. By the time he finished his drink he began to feel as if someone hit him with a ton of bricks. He felt as though he had drunk three or five scotches. His arms and legs began to feel as heavy as tree trunks, and he just wanted to sleep. Why do you think he felt this way?

Check one:

Gregory combined alcohol and other drugs	✓
Gregory drank scotch	
Gregory was depressed	

Discussion Questions:

1. What do you suppose happened to Gregory?
Alcohol in combination with other drugs can have increasingly negative effects.

2. Are there any other factors that could change the effect of alcohol on an individual?
   No food in stomach, size of body, speed of drinking, mood.

3. What can happen when people drink alcohol accompanied by other drugs in the form of medication?
   Alcohol in combination with other drugs may slow the function of the heart and lungs enough to cause serious danger and even death. Some drugs remain in the body for long periods and, when alcohol is added, may cause negative effects hours, or even days after they are taken.

Summary Statement: "We've learned that body size, experience, speed of drinking, food in our stomachs are all factors which influence the effects of alcohol on our minds and bodies. Tomorrow we'll talk more about why alcohol and drugs do not make a good combination."

5th Grade - Lesson III

PURPLE MYSTERY AND *RISKS RATIO*

Objectives. Pupils will be able to identify:

1. the general reaction of the body and mind to alcohol in combination with other drugs.
2. risks and rewards people perceive in drinking.

Materials Needed:

Heavyweight corrasible typing paper or ditto paper.
Purple crayons and range of other colors.
Tongue depressors (or ice-cream bar sticks).
Chalkboard and chalk.

Approximate Time: 45 minutes.

Description: "In our last lesson we met some unusual animals. Now it's your turn to draw your own special animal, unlike any other on earth. Draw, name and color your animal with any crayons you wish, except purple."

After pupils have finished, the teacher gives them time to introduce and discuss their animals, emphasizing appearance and colors.

The students are then directed to color over their entire animal with purple crayon.

Discussion Questions:

1) What happened to the colors in your picture?

2) Are they bright and clear or dull?

3) Did the introduction of the color purple make your picture more positive or negative?

4) Do you like the way it looks this way? Why?

5) In what ways does it look different from the animal you created?

6) Do you remember what happened to Gregory Gork in question VI of the *Detective Worksheet? He combined alcohol and other drugs and had negative effects.*

The teacher points out that putting purple over the picture overtakes the brightness and dulls the colors.

"When alcohol mixes with drugs it causes ill effects. It can dull the senses and make a person different from his usual self. Now take the stick and rub the purple off the picture. As the purple disappears the original colors begin to show through again. But it takes time to rub the purple off your picture. Just as it takes time for alcohol to leave your system and return you to your normal state.

"The purple crayon represents a mixture of alcohol and drugs that can change the individual's behavior. The stick represents the time it takes for alcohol to leave our bodies.

"The mixture of alcohol and other drugs in our bodies can have unusual and unexpected effects upon us. Our personality and behavior may become distorted and different from normal. Once alcohol and other drugs are put into our bodies, only time can taken them out.

"We have learned that alcohol can have a variety of effects upon an individual under different circumstances. When small amounts are consumed with food and at a slow pace the effects can be relaxing. However, we also saw the danger of drinking too much alcohol especially when used in combination with other drugs."

Risks Ratio: "There are dangers and benefits, or risks and rewards, involved in one's decision to drink alcoholic beverages. On a piece of paper, each of you please take a few minutes to make a list of the risks and rewards you believe are related to drinking alcoholic beverages.

Now call out to me the risks and rewards you have listed so that I can write them on the board."

Note: *Pros* and *cons*, *plusses* and *minusses*, or whatever words you find comfortable and which show suitable contrast, can be used as substitutes for *risks* and *rewards*.

The teacher then writes responses on the chalkboard, "brainstorming" until the lists are comprehensive. When brainstorming it is important to be nonjudgmental and to accept all responses. When the lists are completed, pupils are asked to discuss items they believe are under the improper heading.

Possible responses:

Risks	Rewards
Become alcoholic	*Feel relaxed*
Death	*Feel good*
Get hangover	*Gain or keep friend's acceptance*
Do things sorry for later	*Feel a part of the group*
Trouble with police	*Forget troubles*
Parents will find out	*Be life of party*
Auto accident	*Have fun*

Discussion Questions:

1) When do you think someone is an alcoholic?
When drinking alcohol interferes with his/her life.

2) How could death be a result of drinking alcohol?
Alcohol is a depressant. If you drink excessively, your respiration could be slowed to the point of death. Further, the hazards of drinking are worse if alcohol is taken in combination with other drugs.

3) Why might you do something you would be sorry about later?
Alcohol affects judgment and self-control.

4) Why could you be the life of the party or act funny after drinking alcohol?
Alcohol depresses or puts to sleep part of the brain that could inhibit your behavior, so you may feel more relaxed and do things that you would not normally do.

Summary Statement: "Alcohol when taken in small amounts can be relaxing for some adults and can be used in social celebrations. However, too much of anything can be harmful and involve risks. This is especially true for alcohol and other drugs. A decision about drinking should be based on evaluation of the risks and rewards."

5th Grade - Lesson IV

"RIGHTS" AND "RESPONSIBILITIES" BUTTONS
AND *ROLE PLAY*

Purpose: To recognize that a person's decision not to drink should be respected.

Materials Needed: Paper, crayons, scissors and safety pins.
Small circles for *"Rights" and "Responsibilities" Buttons* (page 156).

Approximate Time: 45 minutes.

Description: Review some of the choices concerning alcohol made by the *Jungle Jamboree* animals, such as the Ribbit's decision to drink ginger ale, and Benjamin Broog's trying a beer for the first time. Then remind the class of its list of risks and rewards of drinking alcohol.

"Each of us has certain rights and responsibilities or things we are entitled to do or should do. We have the right to our opinions, our values, our preferences in food and clothes, our choice of friends. Our personal rights should be respected, unless they interfere with someone else's rights or can have harmful effects upon others or are against the law. Moreover, we have responsibilities for keeping others away from harmful actions such as driving after drinking too much.

"Since our rights should not interfere with others' rights, can someone given an example of when someone's right to safety and well-being could be in jeopardy by someone else's decision to drink alcohol?"
Drunk driver.

Present the three Rights and Responsibilities listed below, and ask pupils to write a paragraph about the one they believe in most. It is my right (or responsibility) to:

1. refuse a drink (without being hassled for it).
2. try to prevent someone from drinking too much alcohol.
3. refuse a ride with someone I think has been drinking too much.

After pupils have finished their paragraphs, the teacher selects a child representing each Right or Responsibility to role play a short skit about the one chosen. (Role play only two minutes so that the child does not run out of things to say.)

#1 - "You and I are friends, and we're at my house. My parents are not at home. I find some beer and will try to convince you to drink with me. You will use the reasons you wrote to support your Right not to drink."

At the conclusion of each role play ask other children who chose that "Right" if they have anything else they would say.

#2 - "I will be a friend who has been drinking too much, and you are to try to convince me that I should not have any more to drink."

#3 - "I will be a friend's parent who has had too much to drink but wants to drive you home."

"Now that we've seen we have rights and responsibilities, let's make a button with your favorite on it and wear it in school and at home today. When someone asks you about it, you now can tell him all the reasons why it is your Right or Responsibility."

The teacher may wish to discuss rights and responsibilities in relation to friends.

"Is a friend someone who respects your rights?"
Yes. If not, he is not a real friend.

Summary Statement: "Each of us has special rights and responsibilities which should be respected by others. We each, for example, wear different clothes that appeal to our own tastes. We like different TV shows, or foods or sports. These rights should be respected by others as we should respect others' rights--as long as our behavior does not interfere with the rights or well-being of others. Moreover, we should take what action we can to keep our friends out of dangerous situations."

"RIGHTS" AND "RESPONSIBILITIES" BUTTONS

IT IS MY RIGHT
TO REFUSE A DRINK.

IT IS MY RESPONSIBILITY
TO TRY TO PREVENT
A FRIEND FROM DRINKING
TOO MUCH ALCOHOL.

IT IS MY RIGHT
TO REFUSE A RIDE WITH
SOMEONE I THINK HAS
BEEN DRINKING TOO MUCH.

5th Grade - Lesson V

JOEY AND ME AND *LET'S HAVE A PARTY*

Purpose: To recognize that people can have a good time without drinking alcoholic beverages.

Objectives: Pupils will be able to identify risks and rewards people perceive in drinking.

Materials Needed: Film: *Joey and Me* (15 minutes, see sound track on pages 159-161), projector and screen.

Approximate Time: 45 minutes.

Description: "In the past few lessons we've learned not only about alcohol and its effects on the body, but also about our rights and responsibilities as they relate to drinking.

"Decisions concerning alcohol are not easy. Sometimes we do things we know may harm us because we want to be part of the group doing them.

"No matter what, when we make a decision we must always weigh its risks and rewards.

"We're going to see a film about Joey and his friend who learned too late the risks of drinking."

The teacher shows the film and follows it with a discussion of how alcohol use and abuse affected Joey, his mom and friends.

Discussion Questions:

1) Who was affected by alcohol?
Joey's mother.
Joey, who was killed.
Joey's girlfriend, who broke her arm and lost Joey.
Grover, who felt very guilty about what happened.
The boy telling the story, who lost friend Joey.

2) How do the three "Rights" and "Responsibilities" of Lesson IV fit into the story shown in the film?
#1 - Joey chose not to drink.
#2 - He may not have tried hard enough to stop Grover from drinking too much, or was unsuccessful in convincing him not to drive.
#3 - He should have refused to get into Grover's car or should have insisted on driving the car himself.

3) If that teenage party had not had any alcohol, would the story have turned out differently? If yes, why?
No one would have gotten hurt.

4) What kind of activities, foods, beverages and people could be at a party where teenagers could have a good time without drinking alcoholic beverages? "Brainstorm" and write responses on the chalkboard dividing them into four categories:
   1. *Activities--bowling, movies, beach, picnic, games, music, dancing, ping pong.*
   2. *Food--barbequed foods, hamburgers, franks, ice cream, cake.*
   3. *Beverages--soda, juice, punch, iced tea.*
   4. *People--good friends, boy/girl parties.*

"Of the four areas, which one do you believe is the most important and least important?

"Those who chose *Activities* raise hands." The teacher counts hands and writes the total on the chalkboard next to *Activities*. "Why was this the most important for you?"

The teacher repeats this process for the remaining three categories.

Note: Usually the votes will lean toward *People* and *Activities.* If they don't, you can set up situations in which the food and beverages are very good but the party is still dull because no one is doing anything but sitting around, or the people are not fun to be with. Ask children how they would feel and why.

Summary Statement: "All of us have special things that make us feel good and different things that we enjoy doing. All of these are alternatives to drinking alcohol as a way of having fun. Drinking is not the only way to have a good time or to relax."

SOUND TRACK FOR THE FILM

*JOEY AND ME**

You could say that Joey and I were sort of growing up together, except he was five years older. I first met Joey when he moved in down the block from us. We got to know each other because we both like to play basketball. He was *real* good, so I'd like to go down to the gym to watch him play. He saw me hanging around, always wanting to get into the game, and finally one day he let me shoot a few shots with him and Ted Grover. That's how our friendship started. He began coming around to the house after school. Sometimes we'd just go walking around, talking, when our homework and chores were finished. Then after a while, he started coming around after dinner. Only...it wasn't the same. He'd come over and sit around talking with my mom and dad, and if my sister came in, and *she* always did, he'd get sort of quiet, and, and my sister acted strange too, just as quiet as Joey, and back then she talked all the time when he wasn't around.

I went to Joey's house too, but he didn't feel comfortable about it. I didn't understand too well then, but now I know...his mother, well, well she had a drinking problem. She was, you know, an alcoholic; she needed to drink just to get through the day, otherwise even the littlest thing, like making breakfast was too much for her. At first I thought her drinking was funny. That shows how dumb I was. I didn't know that alcohol was really a drug and messed up your judgment and things like that.

It was a long time before Joey talked to me about it. He knew all about alcoholism being a disease, but, he was still embarrassed about what it did to her.

There were just the two of them. He said she had personal problems ...and I guess they didn't have a lot of money because Joey took that job at the market to help out. Joey never preached or said that alcohol was bad. He knew millions of people drink and know when to stop. And some people don't drink at all, or only once in a while. Like my mom and dad. I remember once my father saying to my mom from now on his limit's two, three if they had dinner. Otherwise he couldn't drive safely.

Even if I was pretty dumb then, I figured out that drinking affected everybody, some people worse than others. The more you drank, the more it messed up your judgment and coordination. Joey and I talked about things like that. That's how he sort of got to be like, well like a big brother. It was Joey who told me that I had to make up my own mind about things like drinking, or smoking, or running around with a gang. The kids were all trying stuff like that--wine, cigarettes, running around at night. Joey said it was okay not to if I didn't want to. Millions of people don't smoke or drink or go joy-riding. You have to choose what feels right for you, not what the gang says or does.

---

*A 16-minute color film available from AIMS Instructional Media Services, 626 Justin Avenue, Glendale, California 91201.

It was my sister who told Joey I was smoking cigarettes on the way home from school. He took me aside one day and told me, you know, if I wanted to smoke, just to go ahead, it was my decision. But I ought to know that smoking would cut down my wind...so I'd never be able to go all the way out for a whole basketball game. Maybe it wasn't a cinch that I'd get lung cancer or heart trouble from smoking, but the odds weren't good. If I was smoking just to see if I could get away with it, or to prove how grown up I was to the other kids, I wasn't fooling him. He knew I was still twelve years old. And maybe not as smart as he thought.

Joey always told me straight. There was a long stretch, two months or so last fall, when I didn't see Joey very much. He had to take care of his mother. I didn't like it at all, but my sister, being four years older than me, and...and really bright, she understood a lot of things about Joey that I didn't. They didn't really have to talk much. They'd study together, or, or they'd just sit and hold hands--for *hours* it seemed. Joey had to spend a lot of time studying to get good grades. He wasn't too good at English and history. I used to wonder why he tried so hard. He told me it was because he needed good grades if he wanted to get a real good education. He couldn't depend on an athletic scholarship to college, even though I thought he was the best guard in 25 years at Lincoln. I asked my sister once why she helped him so much, she just blushed and told me to mind my own business.

Anyway, Joey couldn't come over so much to see me, what with his job at the store and having to take care of his mother. He had to be careful about the medicine the doctor wanted her to take. You've got to take just the right amount, or, or even good medicines can do bad things. If his mother took too many tranquilizers accidentally, or snuck a big enough drink with them, it could kill her. So he just took charge, because there was no one else to do it.

Like in the Jefferson game when we were losing by ten points. It was Joey who took charge, kept cool, and made the big plays. Then finally that dumb Grover caught on and scored the winning basket, but everybody who saw the game knew that it was Joey who really kept cool and won the game for us.

Joey got excited about things...in his own way. Like when my sister won that chemistry scholarship, Joey couldn't stop talking about it. No, no that's not quite right. If he'd won it, he'd just keep quiet.

Anyway, that's why I was surprised when my sister told me that she and Joey were going to a party to celebrate winning the city championship. I guess he felt he had to be there, being the team captain and all. Joey didn't need a party to celebrate. He didn't like the crazy stuff that went on sometimes.

My sister's okay now. They put her shoulder in a cast and she was able to go to the funeral. She--we cried the whole way through. I guess she loved Joey, too. If only Grover hadn't drunk all those beers. Or been so cocky, bragging that he could handle it. Or if Joey had insisted harder on driving, no matter what Grover said. The accident would never happened.

I don't see Joey's mother very much now. She's getting help for her drinking, because, because Joey wanted her to.

I made the seventh grade team this year. Everybody says I remind them a lot of Joey...the way he used to handle himself. I hope I do.

It, it just isn't the same though. I miss Joey. I miss Joey a lot.

GRADE 6

Objectives

Pupils will be able to identify:

1. signs of alcohol abuse.
2. ways the abuse of alcohol might affect an individual's ability to carry out personal, family and community responsibilities.
3. alcoholism as a treatable condition.
4. community resources available to help with drinking problems.
5. the effects of drinking on driving and pedestrian skills.
6. reasons young people have a special drinking and driving problem.
7. ways to deal with potentially hazardous drinking and driving situations.

Content

People sometimes drink as a means of dealing with life's problems by temporarily escaping from the real world. When this happens, they often increase both amount and frequency of drinking until they become dependent on alcohol. After a while, they need to drink even more to get the same effect, and they have developed a habit which is difficult to break. These people are alcohol abusers.

It is not necessarily the amount or how often one drinks. Anyone who drinks so much that he poses a danger to himself or others, even on a single occasion, can be called an abuser. An alcoholic is another type of abuser, one who has lost control over his choice to drink or not--and he usually needs help in regaining control.

When alcohol is misused, it creates rather than solves problems. Often the drinker finds it necessary to lie about his drinking. He may neglect his family, lose his job and get into marital difficulties. He suffers from shame and guilt, and is unable to meet family and community responsibilities. He is a slave to a habit and often is in poor physical health as a result of excessive drinking.

Some abusers drink only on occasion, but nevertheless commit serious offenses which hurt them as well as others. Injuring someone in a drunken assault or killing a person in an automobile crash can be the grave consequences of a single incident of alcohol abuse.

Of the 220 million people in America today there are about 10 million who suffer a condition called alcoholism. They cannot control their drinking at all, or they can do it only with a great deal of effort. They cannot drink socially because if they have one drink they continue until they are drunk.

Alcoholism is our nation's number one drug problem and it affects people from every walk of life--teachers, students, doctors, housewives, executives, mechanics and others. One of the most difficult steps for alcoholics to take is to admit that they have lost control over their drinking and that they need to do something about it. Once they take this step, they can get help, just as they could if they had any other health problem.

People who want to control their drinking can receive help from persons trained in the treatment of alcohol abuse, including alcoholism. Threatment agencies and resources in your community can be located through your family doctor, clergyman, local public health department, nearby hospital, social service agency or telephone directory.

Alcoholics Anonymous (AA), a national organization with groups in most communities, has been successful in helping alcoholics to recover. AA conducts meetings at which members discuss what alcohol did to their lives, how they managed to stop drinking, and how they lead their lives now. Members offer moral support to each other.

Alateen (for teens) and Alanon (for the adult population) are organizations related to AA which help relatives and friends to cope better with the alcoholic, even if the alcoholic himself is not receiving assistance.

Alcohol affects three areas of human performance essential for safe driving or walking in traffic: *sensing* (primarily seeing), *deciding* what to do, and *acting*. For the driver this means performing a series of coordinated tasks using hands, feet, eyes, and ears. He must also make decisions about what he sees, hears and feels in relation to other cars and drivers, traffic signs and signals. He must then take very quick action through steering or stepping on the gas or brake pedal to drive his car safely. For the pedestrian crossing or walking in the street or highway this means seeing cars and traffic signals, deciding what is a safe action, and taking it.

Both drivers and pedestrians see less well after drinking, for alcohol leads to blurred vision, to seeing double and to limited side-vision. Alcohol makes it more difficult to judge distance and speed, and to anticipate bends in the road, and what might be coming around them. Moreover, the drinking driver's or pedestrian's capacity for deciding wisely deteriorates early, and he will probably take more chances than he should. Unfortunately, combined with increased risk-taking is a decreasing ability for acting quickly. As increasing amounts of alcohol reach the brain, the muscles take longer to obey messages sent by the brain. The alcohol in two 12-ounce cans of beer consumed in less than an hour can slow a driver's reaction time by 2/5ths of a second, allowing an automobile traveling at 55 miles per hour to travel an additional 34 feet--possibly the difference between a sober pedestrian's being able to get out of the path of an oncoming car, or remaining in it. A drunken one might be hit. Thus, alcohol is a negative influence on all skills needed for safe driving or walking in traffic.

Drivers 15 to 24 years old experience trouble on the highway far beyond their numerical proportion. They make up about 20 percent of all drivers but are involved in about 35 percent of all accidents and fatalities. Alcohol creates a triple risk for young drivers; they are both inexperienced drivers and inexperienced drinkers, and they are surely inexperienced at drinking *and* driving.

Even a small amount of alcohol can lead to tragedy for the teenage driver. Youths who get into crashes frequently have had relatively little to drink--amounts that might not have led to a crash if the driver had been more experienced in either drinking or driving or both.

Although the choice to drink or not is an individual one which should be respected, there are times when another person's drinking behavior poses a threat to himself as well as others. When this occurs steps should be taken to intervene. These may include making alcohol unavailable to someone who cannot control his drinking, finding a ride home for an intoxicated friend or suggesting an agency to help someone affected by a drinking problem.

Teaching Techniques

1. *Fact Wheel* -- Each student is given a sheet of paper with a large circle resembling a wheel with a hub and spokes. He writes brief statements of things he knows about alcohol and drinking and driving along each of the spokes. Then they "brainstorm" their lists as a group. The teacher records the responses on a fact wheel drawn on the chalkboard. Discussion follows.

2. *Thinking About Drinking* -- A 15-minute film which shows the effects of alcohol on the body and its nervous system and on behavior; also relates facts that will help the viewer make decisions about drinking.

3. *Mini-Lecture* -- The teacher describes reasons teenagers have a special drinking and driving problem. Discussion follows.

4. *Alcohol Pyramid* -- An adaptation of the TV game "$25,000 Pyramid." The class is divided into three groups. Team members take turns giving clues associated with a word card to the rest of their group. Each member responds to a clue, until one person gives a correct answer. Another student then picks a new card from the stack and the process is continued for 60 seconds. The group with the most correct responses wins.

5. *Charades* -- A game in which students act out alcohol-related situations without speaking and other students try to guess the behavior being acted out.

6. *Trigger Films* -- Eight minutes of open-ended films of events in which there may be a variety of ways of handling a drinking situation. Students are encouraged to discuss possible responses to such situations, and the probable consequences of different decisions.

7. *Breaking Habits* -- Pupils are asked to try to break a personal habit for a few days, at which time they share their experiences in this quest with the class. Comparisons are made between the difficulty recovering alcoholics have in stopping drinking and the difficulty pupils may have had in giving up their habits such as nail biting, gum chewing or eating sweets.

8. *Dear Abby Alcohol* -- On a piece of paper, pupils anonymously write a *Dear Abby* question about drinking, drinking and driving or alcoholism. The cards are placed in a slotted box, and the teacher selects and reads cards to the class encouraging them to respond with opinions on how to deal with the problem.

9. *All Bottled Up* -- An 11-minute animated film depicting a child's perspective of alcoholic parents.

10. *Role Play* -- Pupils act out situations in which they attempt to persuade someone not to drink at all or not to drink too much, etc. Such role playing gives them the freedom to express themselves under the guise of pretending to be someone else. Further, it allows them to explore their reactions to potential real life situations.

Materials Needed

Fact Wheel (as page 174) for teacher's use (on oak tag)
Film: *Thinking About Drinking* (15 minutes, see sound track on pages 169-173), projector and screen
Mini-Lecture Notes from content on pages 162-164
Alcohol Pyramid: Game Board drawn on chalkboard (page 175), Game Cards and Board Cards (page 177)
Pencils and paper

Trigger Films (three 2-3 minute films, description page 180),
projector, screen, and guide book
Dear Abby Alcohol (sample letter, page 182) and box
Film: *All Bottled Up* (11 minutes, see sound track on pages 189-192),
projector and screen
Role Play scripts and props (pages 185-188)
Handouts: *Fact Wheel* (one copy for each student, page 174)

6th Grade - Lesson I

FACT WHEEL AND *THINKING ABOUT DRINKING*

Purpose: To review information about alcohol.

Materials Needed: *Fact Wheel* on oak tag, for teacher's use.
Handouts: Film: *Thinking About Drinking* (15 minutes, see sound track on pages 169-173), projector and screen.
Fact Wheel (page 174).

Approximate Time: 45 minutes.

Description: *Fact Wheel* -- The purposes of *Fact Wheel* are to:

1. have each pupil discover how much he/she knows about alcohol and traffic safety;
2. pool everyone's knowledge to see how much the class as a whole knows;
3. clear up myths and misconceptions pupils may have about drinking and driving.

Pupils are each given a sheet of paper with a large circle resembling a wheel with a hub and spokes, and asked to write a phrase or sentence they feel to be a fact about drinking and/or driving along as many spokes as possible. They then "brainstorm" their ideas and the teacher writes those collectively judged accurate on a large *Fact Wheel* made on oak tag.

The teacher then shows *Thinking About Drinking*. This 15-minute film presents facts about alcoholic beverages, their effects on the mind, body and behavior. It discusses the problems of drinking and driving, and alcoholism as a major health problem.

Pupils are then asked to add to the master *Fact Wheel* any additional facts they learned from viewing the film. The *Fact Wheel* should remain in view throughout the five lessons. For future reference students may also add facts to their own *Fact Wheels*.

Assignment: *Breaking Habits* -- Pupils are asked to describe briefly some of their daily habits such as biting nails, chewing gum, watching TV, eating snacks, and are then asked to try to give up one of those habits for 2-3 days, and to keep a log of what they felt, how they were tempted and how they dealt with those temptations.

Summary Statement: "Today we've shown how much we know about alcohol and perhaps have learned a few additional facts. In the next few days we'll learn even more through playing some games and talking about how we can deal with some of the problems of drinking."

SOUND TRACK FOR THE FILM

**Thinking About Drinking*

In anything you do, it's important to be able to make sound decisions. To make sound decisions, it is, of course, necessary to have accurate facts.

One of the things that it is important to know the facts about is alcoholic beverages and their effects on behavior. Once you know these facts, you will be better able to make decisions and form your own attitudes concerning the use of alcohol.

Why do people seem to have a good time when they're drinking?

Is alcohol a stimulant?

Do all alcoholic beverages affect you in the same way?

Why do some people act differently after they've been drinking?

The drinking of alcoholic beverages is an accepted practice by many people. The older you get, the more you'll be exposed to these situations.

How will you handle them? What will you do? The answers to these questions will depend to a great extent on your knowledge, your attitudes and your values.

Here are some facts you should know which might help you make decisions about alcoholic beverages.

There are no exact records when alcohol was discovered, but ancient Babylonian records indicate that they made beer from barley in 2225 B.C.

---

*A 15-minute color film available from Alfred Higgins Productions, 9100 Sunset Blvd., Los Angeles, California 90069.

The Babylonians also enacted laws about the misuse of alcoholic beverages.

Wine making probably began with the early Egyptians.

During the Middle Ages, the making of alcoholic beverages became an important industry.

All through history, people have used alcoholic beverages.

Champagne toasts, for instance, are frequently used for festive occasions.

Offering an alcoholic beverage to one's guests is a symbol of hospitality in many places today. While alcohol is used by many people, it is interesting that an estimated 25% of the population does not use alcoholic beverages.

Although there are several kinds of alcoholic beverages in common use, they all contain the same kind of alcohol--ethyl or grain alcohol.

Beer contains 4 to 5% alcohol. It is made from fermented grain.

Wine contains 12 to 14% alcohol. It is usually produced from grapes, but can also be made from other fruit. Sometimes additional alcohol is added to wine to bring the alcoholic content up to 25%. These are called fortified wines.

Distilled, or hard liquors, such as whiskey, gin, vodka, brandy, and rum, contain 40 to 50% alcohol, and are usually made from grains, wine or molasses.

No matter which of these are used, it's all the same kind of alcohol. They all have the same effect on the nervous system and on behavior. The only difference is the amount of alcohol in each. For example, 1½ oz. of whiskey contains the same amount of alcohol as 3 oz. of fortified wine or a 12 oz. bottle of beer.

Because alcohol contains calories, it has been called an energy source....

....but it's not really a food because it doesn't have the minerals, vitamins or proteins necessary for growth and health.

When alcoholic beverages are consumed, the alcohol enters the bloodstream through the walls of the stomach and the small intestines. The rate of absorption may be slowed somewhat by the presence of food in the stomach.

Under any condition, alcohol is carried by the bloodstream to all parts of the body very quickly.

A person who drinks excessively over a period of time can damage, among other things, his liver. This is because alcohol interferes with the normal processes of liver functions and can damage liver cells.

Although alcohol is absorbed very quickly by the body, it is very slow to leave. It takes one hour for the body to burn up 3/4 of an ounce of alcohol in the average person.

Another fact about alcohol is that the weight of the person drinking it has much to do with its effect on him. It takes less alcohol to affect smaller bodies than larger ones. That's why many young people are more easily and quickly affected than are adults.

Now that we have seen how the body assimilates alcohol, it is even more important to know how it affects the nervous system and our behavior.

Many people believe that alcohol is a stimulant. It is not. The caffeine in coffee, tea and cola drinks is a stimulant because it speeds up some of the body functions. It wakes you up. Alcohol is a depressant because it slows down some of the body functions. It makes a person drowsy and dulls the senses. Alcohol is closely related to ether and will affect you just as does an anesthetic. It can put you to sleep.

Because of the first effects of alcohol on behavior, it is mistakenly thought to be a stimulant. This is why. The first part of you which it depresses or puts to sleep is the cerebral cortex. This is the most sensitive part of the brain.

When the cortex is put to sleep, tensions are eased, self-consciousness disappears and inhibitions are relaxed. People appear to be more excited, to be stimulated. They are actually starting to become depressed or anesthetized.

As more alcohol is consumed, it reaches the lower brain centers, and the process of putting the brain to sleep continues. The brain is becoming more anesthetized.

Controls that normally govern behavior are weakened. Judgment is dulled.

Behavior after drinking an alcoholic beverage is unpredictable. A normally quiet person under the influence of alcohol may think he's the life of the party.

Alcohol can fool people into thinking they are somthing they really are not. A normally peaceful person may want to fight.

As more alcohol reaches the brain, it continues to anesthetize or put the brain to sleep.

Muscular coordination is affected.

Hearing is dulled.

Speech becomes slurred.

Sight is affected.

As larger quantities of alcohol reach the brain, it is put to sleep.

The person becomes unconscious or -- dead drunk.

When sufficient alcohol reaches the brain, the part that controls breathing may be paralyzed.

Death can be the result...final proof that alcohol is a depressant.

Because of their effects on the nervous system, the drinking of alcoholic beverages has created major traffic problems. Many states have enacted stricter laws about drinking and driving.

It is estimated that in over 50% of all fatal automobile accidents, one or more of the drivers were under the influence of alcohol.

There are many reasons why driving after drinking is very dangerous. It can cause blurred vision or double vision.

It also affects your ability to see things far to the side. A person who has been drinking can easily hit a pedestrian because he cannot see the person. This is called tunnel vision.

Alcohol also has an effect on the nerves that control your hands and feet. It slows down your reaction time. This slowing down of reactions is the cause of many automobile accidents.

To complicate matters, the person who has been drinking may not exercise good judgment and will take chances he wouldn't normally take.

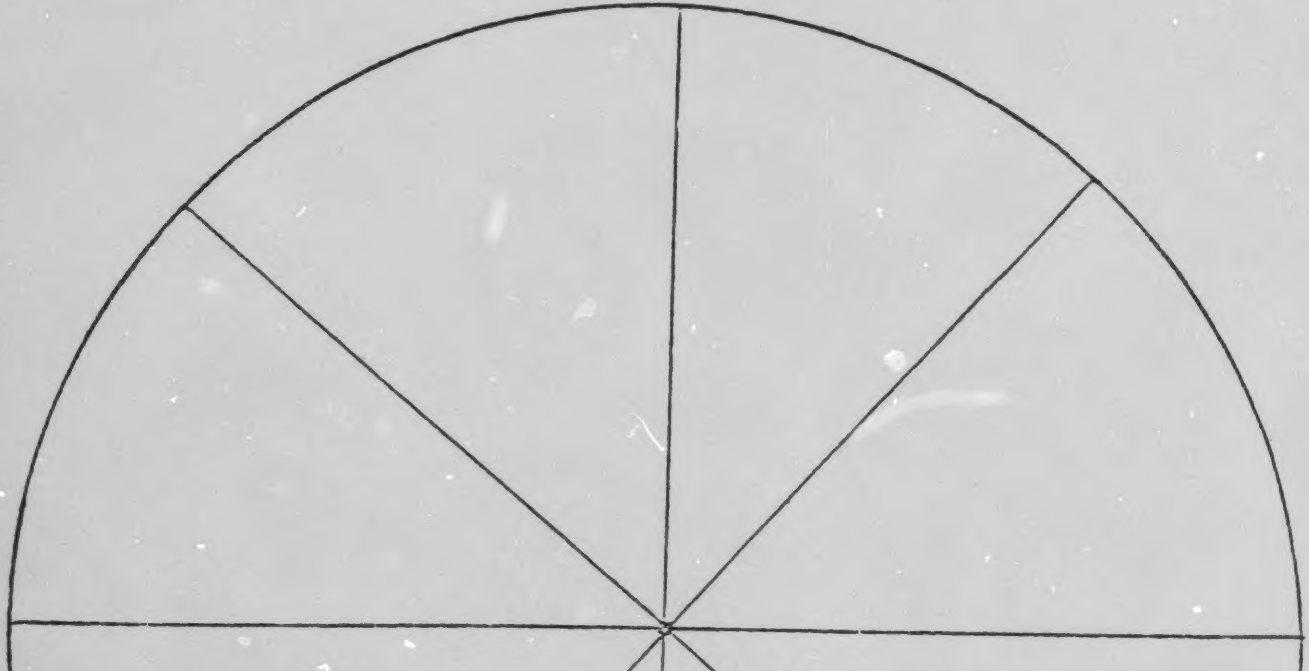
These are some of the reasons why it is illegal to drive while under the influence of alcohol.

The sale of alcoholic beverages to young people is governed by strict laws because of these dangers and because alcohol affects young bodies faster.

Most people can drink in moderation. Unfortunately, there are some who can't. When a person cannot control his drinking, he is an alcoholic.

FACT WHEEL

On each of the spokes of the wheel try to write a true statement about drinking alcoholic beverages and/or drinking and driving.



6th Grade - Lesson II

MINI-LECTURE AND *ALCOHOL PYRAMID*

Purpose: To review information about alcohol.

Objectives: Pupils will be able to identify:

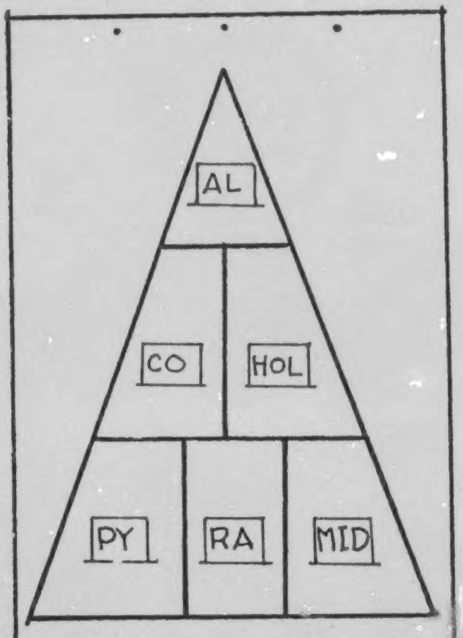
1. signs of alcohol abuse.
2. reasons young people have a special drinking and driving problem.
3. the effects of drinking on driving and pedestrian skills.

Materials Needed: Teacher's *Mini-Lecture* notes on teenager's special drinking and driving problem, and on the effects of alcohol on driving and pedestrian skills (based on content, pages 162 - 164).
Alcohol Pyramid Game Board drawn on chalkboard (page 175), Game Cards and Board Cards (page 177).

Approximate Time: 45 minutes.

Description: The teacher gives a *Mini-Lecture* on the effects of drinking on driving and pedestrian skills and on why young people have a special drinking-driving problem. Class discussion follows.

Alcohol Pyramid -- The teacher divides the class into three groups (about 10 pupils each), explains directions of the game and then does an example of a category.



ALCOHOL PYRAMID: GAME BOARD

"Let's do a sample category. The category is 'things in a classroom.' You are to try to guess what the five words are. For example, something to write with that contains lead. What would you say? *(Pencil)*. Pages bound together that we read *(book)*. Piece of furniture we lean on and keep our papers in *(desk)*. White stick we use to write on board *(chalk)*. Large geographical picture *(map)*. Now we'll begin the game."

The teacher turns over the cards on the *Alcohol Pyramid*, exposing category headings I-VI (page 177). One person from the first group comes forward and picks a category. The teacher gives the pupil the packet of five cards corresponding to the category (page 177). By giving words or descriptions without using the actual word, the pupil tries to give clues so that the rest of the group can guess each of the words. If they are successful, they receive one point for each word guessed. If they guess all the words in 60 seconds, they receive a total of five points. One pupil can also keep track of the number of seconds it took to guess all five. The second group goes, and then the third group, each keeping track of the points won. A second round follows, but with a 30-second limit. The group scoring the most points after two rounds plays the master *Alcohol Pyramid*. In case of a tie on points, the group that earned their points more quickly is the winner.

In order to play the master *Alcohol Pyramid*, one pupil from the winning group is selected to give clues to his/her group in order for them to guess the categories shown under the cards on the chalkboard (bottom of page 175). The categories are written on the back of the cards, and each of the six cards is handed, one at a time, to the pupil giving the clues. The teacher should allow between 1-2 minutes to complete the run, giving that team one point for each category guessed and ten points if they get all of them.

Assignment: "Look up places to go and people to speak to, for a personal drinking problem or to help others who have one. We'll use this information in the next few lessons."

Summary Statement: "Not only is it important to learn facts about drinking and drinking and driving, but we also must decide how to deal with incidents which bring out these issues. Tomorrow we'll begin that experience."

ALCOHOL PYRAMID: GAME CARDS AND BOARD CARDS

CATEGORY GAME CARDS:

Make six piles of cards, each containing a category card and five word cards for each category as listed below.

I. Things That Beverages Come In

1 Pitcher
2 Can
3 Bottle
4 Shot glass
5 Six Pack

II. Traffic Safety Terms

1 Pedestrian
2 Car
3 Driving
4 Accident
5 Stop Sign

III. Types of Drugs

1 Alcohol
2 Nicotine
3 Caffeine
4 Aspirin
5 Cough Medicine

IV. Things at a Party

1 Soda
2 Friends
3 Presents
4 Balloons
5 Cake

V. Types of Alcoholic Drinks

1 Champagne
2 Cocktail
3 Whiskey
4 Wine
5 Beer

VI. Drinks for Children

1 Water
2 Soda
3 Milk
4 Juice
5 Lemonade

BOARD CARDS FOR MASTER ALCOHOL PYRAMID

The following categories are placed on cards and inserted in the *Alcohol Pyramid* game board.

1 Effects (or Risks) of drinking too much alcohol
2 Reasons people drink alcohol
3 Things people say to convince someone to drink alcohol
4 Beverages that contain drugs
5 Causes of auto accidents
6 Reasons teenagers have special problems with drinking and driving

Extra Categories (to be used if time allows during this or subsequent lesson)

Occasions at which people might drink alcoholic beverages
Signs of alcohol abuse
Resources (people or places) to go to with a drinking problem
Responses a nondrinker can make when offered a drink
Skills needed to drive a car
Diseases/disorders caused by alcohol abuse

6th Grade - Lesson III

CHARADES AND *TRIGGER FILMS*

Objectives: Pupils will be able to identify:

1. signs of alcohol abuse.
2. ways the abuse of alcohol might affect an individual's ability to carry out personal, family and community responsibilities.
3. the effects of drinking on driving and pedestrian skills.
4. reasons young people have a special drinking and driving problem.
5. ways to deal with potentially hazardous drinking and driving situations.

Materials Needed: 3x5 cards, pencils.
Trigger Films (description on page 180), projector, screen, and guide book.

Approximate Time: 45 minutes.

Description: *Charades* -- "There are several visible effects of alcohol upon the drinker. We've been discussing some of the effects on judgment, coordination, and vision. Alcohol also can impair one's ability to perform such tasks as driving a car or riding a bike, where quick reactions are essential. Too much alcohol could even interfere with vision and muscle coordination to the point of making difficult the ordinary tasks of walking and talking.

"We're going to play a game, *Charades*. You will be in the same groups as yesterday, when we played *Alcohol Pyramid*. Take out a piece of paper and I will ask you to try to think of responses to my incomplete sentences. *Each person* in the group is to write as many answers as he or she can think of, and then, as a group, you will select what you think to be the five best answers.

"Group I--Complete the following sentences:

When people drink too much, they..............."

"Group II--Some people or places where help can be sought for a drinking problem (for oneself or others) are ...."

"Group III--Some skills that might become difficult if one drank too much are................."

The teacher may have to help pupils to develop an adequate group of responses, but she should not reveal this before they try.

Possible responses:

Group I -- *get drunk, stagger, act foolishly, have poor vision, make poor decisions, may pass out.*

Group II -- *priest, doctor, parent, friend, AA, Alanon, Alateen, social worker, teacher.*

Group III -- *driving a car, riding a bike, playing a sport, walking, talking.*

After each group decides on its best five answers, the game begins. Group I's responses are passed to a chosen member of Group II who tries to elicit the five correct responses from his group by acting out the words.

Once team members guess correctly, the "actor" writes the response on the chalkboard under his team's name. The game continues either until all five correct statements have been guessed and recorded on the chalkboard, or until two minutes have expired. The exact time taken should be recorded.

Group II then passes its five responses to the selected pupil from Group III, and charades begin for that group, following the same procedures. At completion, Group III passes its five responses to the pupil from Group I, and so on.

The Group wins which guesses the most correct responses. In the event of a tie, the group taking the least time is the winner.

Discussion Questions:

1) What does it mean when someone gets drunk?
Alcohol is a depressant. Too much puts one's brain to sleep and results in an inability to perform simple functions like walking and talking.

2) Why would someone act foolishly after drinking too much?
Because alcohol depresses the part of the brain that helps tell us how to act; one might do things he/she might not normally do, like acting silly.

3) Why might one stagger?
Because the muscles don't function properly after too much alcohol, and one's vision may also be affected.

"We have talked about different consequences of drinking alcohol. On some occasions it might be especially dangerous to drink, and we should be prepared to deal with them if they arise."

Description: *Trigger Films** -- "Now we are going to see three short (2-3 minutes each) trigger films, which are open-ended portrayals of situations in which young people might find themselves."

The teacher shows one segment at a time and elicits responses after each. Suggested discussion questions are found for each situation in the *Trigger Film* guide book*, but the teacher should ask these only if pupils need leading into their own discussions and solutions.

I *The Party* -- Situation: A new boy in town wants to make friends with his peers and offers his house for a party while his parents are out.

II *The Mother* -- Situation: An intoxicated mother picks up her daughter at school and drives her and a friend to a shopping mall.

III *The Ride* -- Situation: Younger pupils are offered drinks by older friends and then invited to go for a ride.

Summary Statement: "Decisions about drinking can be difficult to make when they relate to being part of the group and helping us to make and/or keep friends. However, we should carefully weigh the risks and rewards of each situation, and plan our response accordingly. For tomorrow's lesson, remember to bring in your logs about breaking habits."

---

*Available from the AAA Foundation for Traffic Safety, 8111 Gatehouse Road, Falls Church, Virginia 22042.

6th Grade - Lesson IV

BREAKING HABITS AND *DEAR ABBY ALCOHOL*

Objectives: Pupils will be able to identify:

1. signs of alcohol abuse.
2. ways the abuse of alcohol might affect and individual's ability to carry out personal, family and community responsibilities.
3. alcoholism as a treatable condition.
4. community resources available to help with drinking problems.
5. ways to deal with potentially hazardous drinking and driving situations.

Materials Needed: *Dear Abby Alcohol* (Sample letter, page 182), and box.

Approximate Time: 45 minutes.

Description: *Breaking Habits* -- The teacher asks pupils to share their logs (experiences) on how they felt when they tried to give up one of their habits for two or three days:

Discussion Questions:

1) How hard was it to stop your habit?
Very hard, not too bad, etc.

2) What made it difficult?
I always do it and missed it when I tried to stop. I was frustrated.

3) What did you do when you were tempted?
I kept busy doing something else. I called a friend to talk about it.

4) What things did you do so as not to go back to your habit?
I played ball or ate a piece of fruit.

5) Did anyone help you try to break your habit? What did he or she do?
Mom reminded me. Friends kept me busy.

"An alcoholic who tries to stop drinking has a difficult task. He must try to do other things so he doesn't get tempted to drink. It is not easy for him. He knows he should not drink ever again. But we had to give up our habit for only two or three days.

"Sometimes the alcoholic feels helpless and alone, and we may be able to help if we *reach out to him/her*. Also the family or friends of the alcoholic may feel alone and need help from others."

Discussion Questions:

1) Name some places where a person can get help with a drinking problem?
   AA, clergy, doctor, guidance counselor, school nurse, etc.

2) Where can a member of the family go for help?
   Alanon, Alateen, clergy, doctor, community mental health centers, hospital, etc.

Dear Abby Alcohol -- "Have you ever heard of *Dear Abby?* She's a newspaper columnist whom people write to about their problems, and she tries to give suggestions or possible solutions. Each of us is going to write a letter to a similar person called *Dear Abby Alcohol*."

After reading the sample letter, the teacher gives pupils about five-to-ten minutes to write a problem or describe a situation on a piece of paper and fold it and place it in the *Dear Abby Alcohol* box. The problems and situations should deal with drinking, drinking and driving or alcoholism. When the pupils have finished, the teacher selects a card from the box and reads it to the class, encouraging pupils to give their opinions as to what they think is the best method for dealing with the problem. This encourages pupils to think of the consequences of drinking and of ways to deal with them.

Sample Letter:

> I like this boy in junior high school, but whenever he takes me to a party, he drinks beer and acts silly. My parents don't know that there is beer at the party. My boyfriend wants me to drink and says I'm a sissy if I don't. What should I do?
>
> Signed,
> A lovesick non-drinker

"How could we help this girl?"

1. *She could choose to stop dating him.*
2. *She could tell her boyfriend that she wants him to stop drinking and that if he does not she will stop going out with him.*
3. *She could tell him she doesn't want to be forced to drink.*

4. *She could join him in drinking.*

After pupils discuss their suggestions and the teacher writes them on the chalkboard, each answer should be explored further for possible consequences:

1. If she chooses not to date him any longer, what might happen?
   - *She'd find someone she liked better.*
   - *She'd have a "broken heart" and be very sad.*
   - *Her boyfriend might offer to stop drinking, if they could date again.*

Summary Statement: "Today we've found that alcoholics and their families and friends can feel very lonely, and that it may be possible for others to help them. We also realize that it is not easy for an alcoholic to stop drinking, but that he can be helped, for alcoholism is treatable.

"Tomorrow we'll deal with more situations that will increase our understanding of what we can do to help."

6th Grade - Lesson V

ALL BOTTLED UP AND *ROLE PLAY*

Objectives: Pupils will be able to identify:

1. signs of alcohol abuse.
2. ways the abuse of alcohol might affect an individual's ability to carry out personal, family and community responsibilities.
3. alcoholism as a treatable condition.
4. community resources available to help with drinking problems.
5. ways to deal with potentially hazardous drinking and driving situations.

Materials Needed: Film: *All Bottled Up* (11 minutes, see sound track on pages 189-192), projector and screen.

Approximate Time: 45 minutes.

Description: The teacher shows *All Bottled Up*. This 11-minute animated film takes a serious look at alcoholic parents from a child's perspective. It cautions against over-reacting or using the parent's abuse of alcohol as a personal excuse to escape via drugs or alcohol. Discussion of the film follows.

Role Play is intended to induce pupils to interact with one another in alcohol-related situations likely for them. Through role playing or by reading brief open-ended stories, the teacher should have pupils address the problems and possible solutions openly among themselves.

Suggestions for open-ended role plays are found on pages 185-188. The teacher should feel free to alter the content, structure, names, places, language--whatever seems appropriate for local circumstances.

Role-Play can gain maximum pupil participation if approached in a positive, non-threatening way *and if the teacher also takes part.* The teacher should reassure the class that each role-play will last no more than 3-5 minutes.

Volunteers are given roles in each situation and told briefly about the setting. The teacher should take the adult role in at least the first situation.

After the *Role Play*, the teacher opens discussion. The process questions listed after each simulation should be a helpful guide. Flexibility is necessary, and the flow of questions should depend on pupil responses.

No responses should be "put down" or ridiculed, but rather explored by the class in terms of eventual consequences. It is probable that "teachable moments" will arise throughout the discussion, but the teacher should refrain from "preaching" or setting too much of a direction toward solution. The *Risks and Rewards* technique could be used by the teacher to explore the feasibility of suggestions and decisions.

For the conduct of role playing the following "do's" and "don'ts" are suggested.

Avoid:

1) comments on pupils' acting ability;
2) identifying real-life people;
3) "preaching" (only one right answer);
4) ridiculing alternative suggestions;
5) allowing the *role-play* to go beyond 3-5 minutes;
6) overorganizing the situation instead of allowing for imagination.

Emphasize:

1) alternative approaches;
2) exploring the consequences of a decision *(Risks and Rewards)*;
3) correct information;
4) flexibility in the flow of the process questions.

Suggestions for Open-Ended Situations

Situation A: An Alcoholic Parent

Cast: Alcoholic Parent (could be played by teacher)
Daughter or Son
Friend
Setting: Alcoholic parent's home
Situation: Parent looks sloppy and appears drunk, picks on daughter/son about chores, homework, dinner preparation, etc. Friend comes to call for teenager and parent hollers and slams door in her/his face.

Possible Process Questions:

1) What would you do or say if you were the teenager's friend?
Your mother is ill, and you both need help.

2) The mother apparently has a drinking problem; to whom might the daughter turn for help?
Her father, a relative, a teacher, Alateen.

3) If the mother was willing, where might she go for help?
Alcoholics Anonymous (AA), Mental Health Clinic, Physician, Clergy, and so forth.

4) What could the teenager do and what would be the Risks and Rewards?
Run away, refuse to serve any drinks, fight with parent.

Make a list of pupils' responses on the chalkboard, and explore the respective risks and rewards.

Situation B: Drinking Alcohol at a Home Party

Cast: About eight sixth graders
A parent who lives at the party site
Setting: The basement of one pupil's home
Situation: You are having a party at your house and one of your friends brings in a large bag containing cans of beer or bottles of wine. He/she tried to get all of you to join him/her in "having a few," and succeeds with some of your guests. After an hour one of your parents comes down and sees what's going on.

Possible Process Questions:

1) What would you have done if it were your party?
Told the friend with the alcohol to leave.
Joined in the drinking.
Let each guest make his own decision.

2) If you were the parent, what would have have done?
Sent everyone home.
Driven everyone home.
Told the other parents about the incident.
Punished the son or daughter.

3) Why might a parent react differently from the youngsters?
   Feeling a responsibility for guests in the home.
   Being concerned for the safety of the children.
   Parents are "old-fashioned."

4) Why might some of you decide to take the drinks while others of you would not?
   When my friends do something, I like to do it, too (peer pressure).
   I didn't want to get into trouble.

Make a list of pupils' responses on the chalkboard, and explore the respective risks and rewards.

Situation C: To Go or Not to Go

Cast: A 20-year-old who's had too much to drink
Two sixth-graders
Setting: Parking lot at school on a cold rainy night
Situation: You are one of two sixth-graders leaving a school party, and it's cold and raining outside. You have to walk about two miles to your house. A 20-year-old neighbor who has been drinking too much stops the car he is driving and asks you if you want a ride home.

Possible Process Questions:

1) Why might you get into the car?
   It was raining and cold.
   I didn't know how to say no.

2) What were the risks?
   An accident and injury.

3) What could you have told the 20-year-old to avoid riding with him?
   One of my parents was coming soon to pick me up.
   I had made arrangements to go for a soda after the school party.

4) What else could you have done, if you hadn't gotten into the car?
   Called my parents for a ride home.
   Walked.
   Gotten a ride from someone else I knew.

Make a list of pupils' responses on the chalkboard, and explore the respective risks and rewards.

Situation D: Big Basketball Game

Cast: Five or six boys/girls who are basketball players
Teenage boy/girl
Setting: Basketball court at park
Situation: You have an important game in an hour, and this older boy/girl brings over some wine and tells you to drink some so that you'll be more relaxed, and therefore able to play better.

Possible Process Questions:

1) Would some wine help your basketball game?
Yes, it might help me to feel less nervous.
No, it would make me dizzy and spoil my game.

2) How does alcohol affect your playing ability?
Reaction is slower.
Poor muscle coordination.
Poor vision and judgment.

3) What would improve your game more than wine?
Practice.
Building up confidence in my ability.

Make a list of pupils' responses on the chalkboard, and explore the respective risks and rewards.

Summary Statement: "Throughout these five lessons we've learned that drinking too much alcohol can cause problems such as accidents, family conflict and a disease called alcoholism. There are ways to avoid these conditions, and help available for both heavy drinkers or their family and friends."

SOUND TRACK FOR THE FILM

ALL BOTTLED UP[*]

CHRISTIE: When I was eight, I went over to a friend's house when we got home from school. When her father came home. he kissed her hello. Then she got him the paper and helped her mother make dinner, and I went home. I never knew what a father was until that day.

JOHN: I never really understood it, like I didn't know what an alcoholic was or did. Why he drank. All I knew was that he never paid any attention to us.

CHRISTIE: Yeah, and our mom was too busy drinking too, or taking care of our younger brother. I was mad, all the time, took it out on my kid brother. I thought nobody loved me. I never got any love from my mom except on my birthday. Once a year.

RALPH: One day I was with this friend, Paco, and me and him went down to the beach, and we just started talking, you know. And I was pretty low, and I brought this thing out. "Hey, man, I'm not really free 'cause my mom drinks a lot and I've got to stay home and take care of her." And Paco said, "She's an alcoholic maybe." And dumb me, I say, "What's an alcoholic?" He said "A person who can't stop drinking."

DELLA: At first I was confused. When I thought of an alcoholic, I thought of some bum. Yet my dad was in hotel management, catering. All of a sudden there was a lot of him being arrested, he was drinking around the house. I really should have known--when he drank to get going in the morning, and before we went anywhere.

RALPH: An alcoholic is so much more insecure, or immature, or something. Their emotions weren't allowed to grow up. They say, "I drink because you give me too many problems." Or, "I wouldn't drink if you'd only act right." "If you got better grades, I'd stop." The alcoholic uses any excuse to drink.

CHRISTIE: I wish someone had told me when I was ten that your dad and mom love you a lot and they're not drinking because of you, but because they have to. Inside them, I mean. You're not the cause.

DELLA: When you're drinking, nobody's loving. They're just kinda crashed out. It's a family problem. The family is just as involved as the drinker if they only knew it.

---

[*] An 11-minute color film available from AIMS Instructional Media Services, 626 Justin Avenue, Glendale, California 91201.

JOHN: My dad used to take me to the baseball game. He had the best average in the ballpark. He averaged two beers an inning. I felt cheated out of a baseball game. And baseball was very important to me. So I got so I hated him. But I loved him, at the same time.

CHRISTIE: He was our father, but he wasn't there. Then he'd come home and fight with mom. In the midst of all that we'd come in and join the argument.

JOHN: That's the main thing in an alcoholic family, staying up to two, three in the morning, arguing. About us, about them, about their drinking.

CHRISTIE: John was the one who stayed up with mother, making her feel better. Only he wasn't really. She'd just drink to be with dad. And he felt guilty, and drank more.

JOHN: The best thing you can do is find somebody you can trust to talk to, you know, someone who won't blab. Once you get it out, it's easier to deal with. There's some things you don't wanna do, and that's one of them. But it's gotta be done.

DELLA: It's not hard to find someone. Like there's twelve million alcoholics in this country. Lots of them got kids. Just *that* makes you feel like you're not alone.

RALPH: We can live a pretty normal life, and love our parents without getting dragged down by their drinking. Are we gonna act or react? One of the big things, you know, is to be more of an individual, to go your own way. You have to detach yourself and say, "I still love you. If that's the way you want to live your life, okay. I can't change you." 'Cause you can't live anyone else's life. "As much as it's hurting, I have to let you live your own life."

JOHN: I wanted my father to pay attention to me. So at first I got good grades at school. But he didn't care. So I gave up, and I started getting bad grades. He didn't care then either. Finally, I started to make fun of him around the house. That did it. He beat me. I mean, it hurt, and I cried. At least he paid attention to me. Finally.

CHRISTIE: If there's violence, the most important thing--and a lot of times I know it's hard for somebody who is twelve or something--is to leave. Split. I mean, get out. Go outside, for a walk around the block or something. Go to a neigbor's. Especially if there is someone who understands. You got to save yourself first, before you can save anyone else.

RALPH: Yeah, find a friend you can talk to. Do anything. But don't argue. Keep away from it.

DELLA: If you can't leave the house, go to your room and sit there. If you don't have anyone to talk to, get out a piece of paper and just write out your feelings.

JOHN: Just so you don't bottle them up inside.

CHRISTIE: It's normal if you hate what they do. You don't have to like them; just love them.

JOHN: What Christie and I did was dumb. We started shoplifting. Maybe we wanted to get caught or something, so the police would make our folks pay attention, you know. Dumb. But we never got caught. And we were too scared to tell them.

CHRISTIE: That wasn't any good, so I took over all the responsibility for all the dinners and my younger brother. My mother never once paid attention.

DELLA: For me it was drugs. I was fourteen when I began using drugs and drinking, like my father. I was ridiculed in school a lot because I didn't have sharp clothes and things like that, dumb things, and these people, the dopers, were the only ones who accepted me. When I was out of it I could really laugh, you know. A lot. I couldn't laugh without it. Nothing was really funny then. It was my form of escape.

CHRISTIE: It seems there's like a lot of families where one of the kids becomes an alcoholic, too. Partly it's around and, you know, mom or dad is drinking so it must be okay; partly it's because the kid wants to get even. It's crazy. The kid says, "You're messing yourself up and getting down on me, so I'm going to drink and mess myself up and get even."

RALPH: Drugs, drinking, if you're escaping, you can't help them.

JOHN: Well, still, there isn't a hell of a lot you can do. Pouring the liquor down the drain isn't going to help. They just buy more.

CHRISTIE: Or saying, "Why don't you stop drinking?" They've got to *want* to stop, to want help.

JOHN: It seems cruel, but sometimes the best thing to do is to let the alcoholic hit bottom. It's when we start covering up for them that we let them go on drinking. Your dad is in the habit of getting 502's and you keep bailing him out, or you mom is drinking and you tell the neighbors she's got a cold. This isn't going to help.

DELLA: Some hit bottom and go right on through. But most get miserable, sooner or later, and want to change. And when that happens, you got to be ready. One day they're sober and they say something like, "I wish I could stop drinking." "I need help. What do I do?"

JOHN: When he asks for help, you, you have to know about the alcoholism council where you live, or Alcoholics Anonymous. At least have a phone number handy.

DELLA: First, get *yourself* straight. That's pretty important. I realized I couldn't straighten out my dad unless I was straight myself.

RALPH: That's your responsibility to the alcoholic. Get yourself straight. And know where help is. It's not in the bottle, or in bailing them out of jail, or blaming them. It's not feeling sorry for yourself.

CHRISTIE: You can go on being happy, despite what your parents do. If you let what other people do affect you, all it does is screw up your own head.

JOHN: I really think the most important thing is for a person to know that he can be himself and still be accepted. That's hard when you're ten or eleven or even twelve, but it's something you got to learn first, before you can help.

CHRISTIE: The most important thing is to like yourself. To live your own life and be happy doing the things you like doing. Your mom or your dad's drinking--you can't let it be your whole life.

JOHN: It's like my folks live their own lives. I try not to worry about what they're doing. And that's hard, 'cause I love them.

APPENDIX A

PROFESSIONAL REFERENCES WITH SELECTED ANNOTATIONS

ABC's of Drinking and Driving: Facts About America's No. 1 Safety Problem. Mineola, New York: Nassau County Traffic Safety Board, 1978.

This 16-page illustrated pamphlet is easy to read and understand. It presents information about the hazards of drinking and driving and employs drawings and charts to help the reader understand the issues surrounding alcohol and the ways in which it can impair driving ability.

AL·CO·HOL. Falls Church, Va.: American Automobile Association, 1978.

Illustrated pamphlet about alcohol, its effects, and the problems it can cause. Easy to read and understand. Available from AAA, Traffic Safety Department, 8111 Gatehouse Road, Falls Church, Va. 22042.

Alcohol Education: Curriculum Guide for Grades K-6 and Alcohol Education: A Teacher's Curriculum Guide for Grades K-6. Albany, New York: The University of the State of New York, The State Education Department, Bureau of Drug Education, 1976.

Companion guides for a student-centered educational approach to alcohol education. The teacher's guide includes valuable teaching resources (pp. 65-79).

Alcohol Health and Research World, 3, 2 (Winter 1978).

This issue contains a number of articles on alcohol abuse, including three concerning youth: 1) Hubbard, Henrietta. "Focus on Youth: The Prevention Model Replication Program," pp. 9-13; 2) DiCicco, Lena. "Evaluating the Impact of Alcohol Education," pp. 14-20; and 3) Sanchez-Dirks, Ruth. "Drinking Practices Among Hispanic Youth," pp. 21-27.

Annotated Resource Guide for Alcohol, Tobacco, and Other Drug Abuse/Misuse Prevention Education Guides: Elementary Level. Albany, New York: The University of the State of New York, The State Education Department, Bureau of Drug Education, 1978.

A selective list of printed and audio-visual instructional materials of use in drug education programs for children, teachers and parents. Includes description, cost, and ordering information.

Carroll, Charles R. *Alcohol, Use, Nonuse, and Abuse*. 2nd ed. Dubuque Iowa: William C. Brown Company Publishers, 1975.

This book presents a broad overview of alcohol as a social beverage and includes basic information on alcohol's effects on the body and mind. It describes the problems of dealing with alcohol in a culture where drinking is symbolic of adult status and where standards for drinking behavior often are in conflict with practice.

Chafetz, Morris E. *Facts About Alcohol and Alcoholism*. Rockville, Md.: National Institute on Alcohol Abuse and Alcoholism, 1974.

This digest defines alcoholism and problem drinking and describes the effects of these conditions on the drinker and society. Factors in the development of drinking problems are discussed along with suggestions for prevention and treatment (including addresses of treatment agencies).

________. "Problems of Reaching Youth." *The Journal of School Health*, 43, 1 (January 1973), pp. 40-44.

"The Child, The Teacher and The Drinking Society." *Cork Communicator*, 1, 1 (Fall 1979), pp. 1-3.

A critique of the medical-public health model of alcohol education, the rationale for introducing an integrated alcohol curriculum in the elementary school, an understanding of drinking and nondrinking behaviors as a psychosocial construct, and the school's role in education for competence and living. (A more complete version of this article will be found in *Adolescence and Alcohol*, eds. Mayer and Filstead, Cambridge, Ma.: Ballinger Publishing Co., in press.)

Committee on the Medical Aspects of Automotive Safety. *Drinking and Driving*. Chicago: American Medical Association, 1971.

Cross, Kenneth D. *Bicycle-Safety Education -- Facts and Issues*. Falls Church, Va.: AAA Foundation for Traffic Safety, 1978.

The author presents a broad view of bicycle safety, with an in-depth examination of inherent issues and problems. Includes a discussion of education and training philosophy and objectives that could be adapted to alcohol and traffic safety education.

Decisions About Drinking: A Sequential Alcohol Education Curriculum for Grades 3-12. Somerville, Ma.: CASPAR Alcohol Education Program and Somerville Public School Faculty Curriculum Team, 1978.

This comprehensive curriculum includes a guide in alcohol education for grades 3-6. Curriculum is composed of structured sequential modules and is designed to address issues of responsible decision-making about drinking.

D'Elia, Joseph, ed. Drug Abuse: it's up to you. New York: Cebco Standard Publishing, 1974.

Written for preadolescents, this 128-page book presents basic information on drugs and drug abuse problems. It stresses understanding of self and others, suggests ways of dealing with daily problems, and advocates personal responsibility for decision-making in relation to the use of alcohol and other drugs.

Edwards, Gerald. Reaching Out: The Prevention of Drug Abuse Through Increased Human Interaction. Garden City, New York: Innovative Designs for Educational Action, Inc., 1972.

A guide suggesting innovative exercises and techniques that may help students assume responsibility for their own behavior and learning.

Embry, Dennis D. "Designing Instructional Materials for Young Children." (in press with) New Directions in Special Education. Kansas City, Ks.: Jossey-Bass, Inc.

Discusses underlying issues in designing printed academic materials for young children. It is written to be of interest to practitioners and researchers. Design features discussed include: use of color; language style; use of pictures and drawings; as well as more technical issues relating to motivation and reinforcement.

Engs, Ruth C. Responsible Drug and Alcohol Use. New York: Macmillan Publishing Co., Inc., 1979.

Offers information to aid in making responsible choices concerning the use of various drugs, including alcohol. The author furnishes information on the use and abuse of many drugs and on their effects and implications for the individual.

Facts About Alcohol. Rev. ed. Toronto: Addiction Research Foundation of Ontario, 1975.

This brief pamphlet deals largely with short- and long-term effects of the use of alcohol. Statistics reflect Canadian research.

Finn, Peter, and Patricia A. O'Gorman. Teaching About Alcohol: Concepts, Methods, and Classroom Activities. Boston: Allyn and Bacon, Inc. (Longwood Division), 1981.

A detailed teacher's guide including student activities and a reference manual with answers to student's probable questions. Covers all aspects of curriculum development and presentation from goals and objectives of alcohol education to evaluation of program effects.

Finn, Peter. "Alcohol: You Can Help Your Kids Cope." Instructor (November 1975), pp. 76-78, 83-84.

The author describes how elementary school teachers can effectively help youngsters develop personally and socially acceptable attitudes about drinking and abstaining.

________. "The Role of Attitudes in Alcohol-Traffic Safety Education." Proceedings of the Sixth International Conference on Alcohol, Drugs, and Traffic Safety. Toronto, Canada. September 1974.

________, and Jane Lawson. Alcohol: Pleasures and Problems. Cambridge, Ma.: Abt Associates Inc., n.d. (1975 or later).

Directed toward helping youths make sound decisions, this 23-page book explores the reasons why people choose to drink or not to drink, considers the common effects of alcohol on the body and mind, and identifies risks associated with alcohol use.

________. Kids and Alcohol: Facts and Ideas About Drinking and Not Drinking. Cambridge, Ma.: Abt Associates, Inc., 1976.

An illustrated pamphlet describing the effects of alcohol on children and adults, prepared for HEW, Office of Education, Division of Educational Technology, and available from the National Council on Alcoholism, Inc., 733 Third Avenue, New York, New York 10017.

________, and Judith Platt. Alcohol and Alcohol Safety: A Curriculum Manual for Junior High Level. Vols. I and II. Cambridge, Ma.: Abt Associates, Inc., Human Development Division, 1972.

These manuals were prepared for the National Highway Traffic Safety Administration and the National Institute on Alcohol Abuse and Alcoholism. They were designed to provide school personnel with educational objectives, classroom activities and materials and resources for developing alcohol and safety education curricula. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Hafen, Brent Q. Alcohol: The Crutch That Cripples. New York: West Publishing Company, 1977.

This book draws heavily on research reports published by NIMH, NIAAA and others in the field to help the reader develop an understanding of 1) the use of alcoholic beverages in American society; 2) the physical and social effects of alcoholic beverages; 3) problem drinking and alcoholism; and 4) prevention and treatment of alcohol problems.

Hames, Lee N. "Can Alcohol Education Change the Role of Youth on Our Highways?" Proceedings of the Sixth International Conference on Alcohol, Drugs, and Traffic Safety. Toronto, Canada. September 1974.

Hammond, Robert L. Almost all you ever wanted to know about Alcohol -- but didn't know who to ask! Lansing, Mi.: Michigan Alcohol and Drug Information Foundation, 1978.

An attractive and readable information source book on alcohol. Presents facts in an entertaining and upbeat fashion. Includes information on alcohol's impact on the individual and society. The author offers information regarding problems and solutions relating to alcohol abuse. A chapter is devoted to the dangers of drinking and driving.

Harrington, Eileen. Education for Living. Hicksville, New York: Exposition Press, Inc., 1978.

A structured, step-by-step program for educating the elementary school child to achieve a positive self-concept and a feeling of personal success while learning the three Rs.

Hawley, Robert C., and Isabel L. Hawley. Human Values in the Classroom: A Handbook for Teachers. New York: Hart Publishing Company, 1975.

If You Drive, What About Drinking? Falls Church, Va.: American Automobile Association, 1975.

Available from local affiliates of the American Automobile Association (AAA).

Jahoda, Gustav, and Joyce Cramond. Children and Alcohol: A developmental study in Glasgow. Vol. I. London: Her Majesty's Stationery Office, 1972.

This study used Piagetian theory as a guide for examining the development of concepts and attitudes toward alcohol. The authors note that although children actually learn about alcohol before entering school, it is during the years from six to ten that they master the concept of alcohol and when attitudes toward alcohol and drinking gradually develop.

Kidd, Aline H., and Jeanne L. Rivoire, eds. Perceptual Development in Children. New York: International Universities Press, 1966.

A broad examination of the development of perception, this 548-page work presents perceptual development as one of many currents in a stream of interdependent processes, including affective, social, and conceptual activities. Includes a critical review of theories of perception.

Lindsay, Garry M. "Implications of Piagetian Theory for Health Education." Eighth Annual UAP-USC Interdisciplinary International Conference on Piagetian Theory and the Helping Professions. Health Values: Achieving High-Level Wellness, 2, 2 (March/April 1978), pp. 68-73.

Highlights of Piagetian theory summarized for application to health education curricula. Includes a bibliography of child development literature. Reprints are available from Garry M. Lindsay, 1223 McIntyre, Ann Arbor, Mi. 48105.

*McCarthy, Raymond G., ed. Alcohol Education: For Class and Community. 2nd ed. New York: McGraw-Hill Book Company, 1976.

Specialists from a number of disciplines discuss facts and attitudes regarding the use and non-use of alcoholic beverages. They also deal with questions of social concern arising from excessive use.

*Miles, Samuel A., ed. Learning About Alcohol -- A Resource Book for Teachers. Washington, D.C.: American Association for Health, Physical Education, and Recreation, 1974.

Written for teachers who may have limited or no experience in the area of alcohol education, the authors present basic information and approaches which they believe are likely to produce responsible behavior in relation to alcohol use.

Milgram, Gail G. What is Alcohol and Why Do People Drink? New Brunswick, New Jersey: Rutgers Center of Alcohol Studies, 1976.

Presents photographs, diagrams and descriptions of what alcohol is, why people drink it, and what its effects are.

Mooney, Carol, et al. "Here's Looking At You -- A School-Based Alcohol Education Project." Health Education (November/December 1979), pp. 38-41.

This article outlines a school curriculum for grades K-12 including alcohol information, decision-making, coping skills and self-concept. The program, designed to be taught either as a unit or integrated into other curriculum areas, is geared toward helping young people make responsible decisions about alcohol. Includes short-term evaluation results focusing on the effectiveness of teacher training workshops and on the effects of the curriculum on the students who are exposed to it.

---

*Contains extensive bibliographies or listings of further references related to youthful drinking practices and/or alcohol and highway safety.

Murphy, Charles J. Traffic Safety Education for Schools -- An Appraisal and a Proposal. Washington, D.C.: AAA Foundation for Traffic Safety, 1965.

An examination of school traffic safety education programs with regard to fundamental concepts. The author looks at the relationships between attitude and behavior and presents ideas for the development of a broad plan relating efforts at one grade level to efforts at other levels. Suggestions can be adapted for alcohol and traffic safety education curricula.

O'Gorma, Patricia A., et al., eds. "'Defining Adolescent Alcohol Use' -- Implications Toward a Definition of Adolescent Alcoholism." Proceedings of National Council on Alcoholism 1976 Conference, Washington, D.C. New York: National Council on Alcoholism, 1977.

Transcript of proceedings of conference held to assess and promote the need for more concise definitions and terminology in the field of adolescent alcoholism. Includes presentations by and discussion between authorities and researchers in the field.

Pepper. New York: The National Council of Alcoholism, Inc., 1974.

Short, illustrated story about a puppy's view of his alcoholic mater. Presents the problems of alcohol abuse and possible solutions through the eyes of a neglected pet. Printed as a special project by the Frederick County Council on Alcoholism, Inc. For information, write to the Council at Box 1321, Frederick, Md. 21701.

Piaget, Jean. The Child and Reality -- Problems of Genetic Psychology. Trans. A. Rosin. New York: Penguin Books, 1978.

________. Psychology and Epistemology -- Towards a Theory of Knowledge. Trans. A. Rosin. New York: Penguin Books, 1978.

Preliminary Design for a Multi-Media Learning System for Alcohol Education of Elementary School Students. Van Nuys, Ca.: Sutherland Learning Associates, 1974.

A program of multi-media instruction prepared for the National Institute on Alcohol Abuse and Alcoholism.

"Psychology and Children: Current Research and Practice: Essays in Observance of the International Year of the Child 1979." American Psychologist, Special Issue, 34, 10 (October 1979).

Sections include: Children in Perspective; Identifying the Problems and Needs of our Children; Improving Our Knowledge of Children's Thought; Emerging Themes for Social-Emotional Development; Diagnostic and Treatment Services for Children; and Psychology and Social Policy for Children.

Seixas, Judith S. Alcohol -- What It Is, What It Does. New York: Greenwillow Books, 1977.

This illustrated alcohol education text was written for elementary school children. Fifty-six pages are divided into six chapters which describe how alcohol makes individuals feel and act, why people do or do not drink, and how one might cope with an alcohol-related situation.

________. Living With a Parent Who Drinks Too Much. New York: Greenwillow Books, 1979.

Written to help the children of alcoholics understand what is happening to them and their parents. Describes alcoholism, identifies the behavior of the alcoholic, and pinpoints the difficulties faced by the family with an alcoholic member. The author offers advice through showing how others have dealt with the problem and by explaining where help can be sought.

Singer, Dorothy G., and Tracey A. Revenson. A Piaget Primer -- How a Child Thinks. New York: New American Library, 1978.

Offers an explanation of Piaget's texts and presents his views of a child's thought processes through illustrations drawn from Alice in Wonderland, Winnie the Pooh, Peanuts, and other literature for children. Subjects covered include the development of intelligence, playing and imitating, language development, and discovering space, time, and numbers.

Smart, Mollie S., and Russell C. Smart. Children -- Development and Relationships. 3rd ed. New York: Macmillan Publishing Co., Inc., 1977.

A comprehensive work exploring the development of human life and growth, from the infant to the adolescent.

Smart, Reginald G. The New Drinkers: Teenage Use and Abuse of Alcohol. Program Report Series No. 4. Toronto: Addiction Research Foundation of Ontario, 1976.

The authors attempts to link the findings of research about youthful drinking and its problems and discusses reasons for drinking, the extent of drinking problems, and steps that parents and social institutions might take to help solve such problems.

National Safety Council, Statistics Division. Accident Facts: 1980 Edition. Chicago: National Safety Council, 1981.

Although the numerous charts and graphs in this booklet present statistics about many classes of deaths and injuries, the major emphasis is on motor vehicle accidents, including those which are alcohol-related.

U.S. Department of HEW, National Center for Health Statistics. Family Background, Early Development, and Intelligence of Children 6-11 Years -- United States. Vital and Health Statistics Series 11, #142. Rockville, Md.: DHEW, August 1974.

A report containing estimates of the prevalence of various congenital and health problems and describing the relationship of particular aspects of family background, infant health status and early developmental history to the intellectual development of American children 6-11 years of age.

________. National Institute on Drug Abuse. This Side Up: Making Decisions about Drugs. DHEW Publication No. (ADM) 78-420. Rockville, Md.: NIDA Office of Communications and Public Affairs, 1978.

An information source book for young people faced with making decisions about drugs, including alcohol. Heavily illustrated, the publication offers a comprehensive overview of the effects of drugs on the body and mind as well as risks involved in using them. Also included are activities for developing decision-making skills and promoting a positive self-image.

________. Public Health Service. Alcohol and Health -- Third Special Report to the U.S. Congress from the Secretary of Health, Education and Welfare. Washington, D.C.: DHEW, 1978.

This report presents facts on alcohol with relation to use, abuse, special population groups (including youth), biomedical consequences, fetal alcohol syndrome, treatment and prevention, and more.

________. Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, National Institute on Alcohol Abuse and Alcoholism. Prevention X Three: Alcohol Education Models for Youth. Rockville, Md.: National Clearinghouse for Alcohol Information, n.d.

Describes three exemplary youth (grades 3-12, K-12, and college) alcohol abuse prevention projects which were selected as replication models by the National Institute on Alcohol Abuse and Alcoholism (NIAAA).

Unterberger, Hilma, and Lena DiCicco. "Alcohol Education Re-evaluated." Bulletin of the National Association of Secondary School Principals, 52 (1968), pp. 15-29.

Presents a critical analysis of the alcohol education curriculum in public schools.

What's "Drunk," Mama? New York: Alanon Family Groups, 1977.

This 30-page book describes the problems and solutions of living with an alcoholic parent. Illustrated and in large print, it is designed for use in group reading with young children.

Williams, Allan F., Lena M. DiCicco, and Hilma Unterberger. "Philosophy and Evaluation of an Alcohol Education Program." *Quarterly Journal of Studies on Alcohol*, 29 (1968), pp. 685-702.

**Youth Alcohol Awareness for guidance counselors, youth workers, health educators -- Trainer Manual, Trainer Handbook.* Atlanta, Ga.: Southern Area Alcohol Education and Training Program, Inc., 1977.

A training manual developed to fit the particular needs of personnel in school systems or other settings for youth programs. Focusing on the effects of alcohol, growth and development, values clarification and the youthful helper, the manual is designed to be used as training-as-prevention or training-as-treatment for youth. Includes a youth alcohol awareness scale which can be used as a pre/post test.

*Zylman, Richard. "Youth, Alcohol, and Collision Involvement." *Journal of Safety Research*, 5, 2 (June 1973), pp. 58-72.

---

*Contains extensive bibliographies or listings of further references related to youthful drinking practices and/or alcohol and highway safety.

APPENDIX B--EVALUATION SUMMARY

Table of Contents

Page

INTRODUCTION 207

SECTION ONE: FIELD-TESTING EVALUATIONS BY TEACHERS AND PUPILS AND THROUGH *PRE/POSTTEST* BATTERIES 208

- Teachers' Evaluation of the Entire K-6 Module 208
- Evaluation Form 208
- Instructions for Suggesting Improvements to the Field-Testing Version of the Module 208
- Teacher's Evaluation Form 210
- Pupil's Evaluation Form 214
- Results 215
- Pupils' Evaluation of the Module 220
- Evaluation Through *Pre-Posttest* Batteries 220
  - Method 222
  - Instrumentation 224
  - Research Paradigm 234
  - Training of Teachers 235
  - Data Collection 236
  - Analysis of Data 237

- Results 237

KINDERGARTEN 241

- Teacher Evaluations 241
  - Overall K-6 Module 241
  - Kindergarten Module 242

  - Test Battery Results 245
  - Summary 247

FIRST GRADE 248

- Teacher Evaluations 248
  - Overall K-6 Module 248
  - First Grade Module 248

  - Test Battery Results 252
  - Summary 255

SECOND GRADE 256

Teacher Evaluations 256
Overall K-6 Module 256
Second Grade Module 257

Test Battery Results 261
Summary 267

THIRD GRADE 269

Teacher Evaluations 269
Overall K-6 Module 269
Third Grade Module 269

Test Battery Results 274
Summary 279

FOURTH GRADE 280

Teacher Evaluations 280
Overall K-6 Module 280
Fourth Grade Module 280

Pupil Evaluations 285

Test Battery Results 290
Summary 295

FIFTH GRADE 297

Teacher Evaluations 297
Overall K-6 Module 297
Fifth Grade Module 297

Pupil Evaluations 301

Test Battery Results 306
Summary 311

SIXTH GRADE 312

Teacher Evaluations 312
Overall K-6 Module 312
Sixth Grade Module 312

SIXTH GRADE (Continued)

Pupil Evaluations 316

  Test Battery Results 321
  Summary 332

SUMMARY OF GENERAL CHANGES IN THE OVERALL (K-6) MODULE 333

SECTION TWO: TEST BATTERIES--KINDERGARTEN THROUGH SIXTH GRADE . 334

Introduction 334
Instructions for Administration of Test Batteries . . 336

KINDERGARTEN 338

Instructions for Teachers 339
Kindergarten Booklet 342

FIRST GRADE 350

Instructions for Teachers 352
Booklet I Instructions 352
First Grade Booklet I 354
Booklet II Instructions 360
First Grade Booklet II 362
Booklet III Instructions 365
First Grade Booklet III 367

SECOND GRADE 370

Instructions for Teachers 372
Booklet I Instructions 372
Second Grade Booklet I 375
Booklet II Instructions 380
Second Grade Booklet II 383

THIRD GRADE 386

Instructions for Teachers 387
Booklet I Instructions 387
Third Grade Booklet I 388
Booklet II Instructions 390
Third Grade Booklet II 391

FOURTH GRADE 393

Instructions for Teachers 394
Booklet I Instructions 394
Fourth Grade Booklet I 395
Booklet II Instructions 398
Fourth Grade Booklet II 399

FIFTH GRADE 402

Instructions for Teachers 403
Booklet I Instructions 403
Fifth Grade Booklet I 404
Booklet II Instructions 410
Fifth Grade Booklet II 411

SIXTH GRADE 414

Instructions for Teachers 415
Booklet I Instructions 415
Sixth Grade Booklet I 416
Booklet II Instructions 417
Sixth Grade Booklet II 418
Booklet III Instructions 423
Sixth Grade Booklet III 424

APPENDIX C DATA STORED AT TEACHERS COLLEGE, COLUMBIA UNIVERSITY 427

Introduction

A field-testing version of the *Alcohol Education and Traffic Safety Module for Elementary School, Kindergarten Through Sixth Grade,* developed from the procedures described in Background and Acknowledgments (pages xiv-xv), was presented in a controlled study with 5,687 pupils at 51 elementary schools in eight states. Public and private schools were chosen from urban, suburban and rural settings so that the results would be broadly applicable.

The purpose of field testing was to determine the effectiveness of the Module and ways to improve it. Evaluation was based on the responses of teachers and pupils to open-ended questions and rating scales, and on the results of the administration of *pre/posttest* batteries to measure pupil change in terms of the objectives specific to each grade level, K through sixth.

Responses and results are reported in one of two categories: (1) those which apply to the entire K-6 Module; and, (2) those specific to each of the seven grades. In addition, a synthesis of the results of the evaluations described was used to transform the field-testing version of the Module into the final version, and a summary of the more important changes appears on page 333.

This Appendix is divided into two sections: (1) field-testing evaluations by teachers and pupils and through *pre/posttest* batteries; and, (2) test batteries with item data, instructions for administration and scoring, and other relevant information.

SECTION ONE: FIELD-TESTING EVALUATIONS BY TEACHERS AND PUPILS AND THROUGH *PRE/POSTTEST* BATTERIES

Teachers' Evaluation of the Entire K-6 Module

Teachers at each grade level were trained in the use of the Module for their respective grades, and asked to review the entire K-6 Module page-by-page, commenting, correcting and suggesting. They were requested to respond by writing directly on the Module and in the following evaluation form (condensed from the actual eight-page form) which was distributed and explained at the training workshops.

Actually a slightly different form was prepared for teachers at each grade level. Grade 4 is used as the illustration because it is the beginning grade for evaluation of the Module by pupils. Up to the point in the form at which three questions were asked under Appendix B--Evaluation Summary, all teachers were responding to the generic portion of the entire Module; from question three forward they were responding to questions about that portion of the Module specific to the grade to which they presented it.

Evaluation Form

Instructions for Suggesting Improvements to The Field-Testing Version of the Module

As we have said, we deeply appreciate your involvement in this effort to develop a valuable educational approach to reducing the alcohol-related problems suffered by the young people of our nation, and will acknowledge your contribution in the final version of the Module. Please print below the exact way in which you would like us to note your cooperation.

NAME____ GRADE__________

SCHOOL____

CITY____________________________ STATE__________ ZIP_______

1. As you read and use the Grade Four Module, please write your comments, additions and other suggestions for change directly on the margins or between the lines of the pages to which they apply or on an additional sheet. Please then return marked pages in the envelope provided. You will, of course, be sent the final copy of the Module as soon as it is available.

2. In addition, please answer the questions on pages 210-213 and have pupils in the experimental (E) class fill out the Pupil's Evaluation Form on pages 214-215 (an adequate number of copies will be given to you at the training session) immediately after completion of Lesson V, and return all materials in the envelope mentioned in (1) above.

Introduction to the Module

1. Does the Introduction give you sufficient indication of the "whys" and "hows" of the Module, and of why it is being directed toward K-6 pupils?

2. How might the Introduction be improved?

3. Is the description clear of the Organization by Grade Level?

Appendix A -- Professional References with Selected Annotations

1. Is this helpful?

2. Would you like additional references? (If yes, of what type?)

3. Can you suggest additional references that might be helpful for others? (If yes, please provide as many details as you can.)

Appendix B -- Evaluation Summary

1. Do you find the summary valuable?

2. What would you add or leave out to improve its usefulness?

3. Do you feel that the *pre/posttest* batteries can be used satisfactorily to measure the effectiveness of the Module at the grade level at which you teach? If no, what would you suggest that might be better?

(From this point on, please base responses on the Grade Four Module.)

Grade 4

Teacher's Evaluation Form

1. Do you find the Objective(s) practical and valuable? If no, what changes would you make?

2. Is the overview of Content clear and accurate? If no, please write changes directly on text.

3. Is the brief description of Teaching Techniques helpful and clear? If no, please write suggested changes on text.

4. Is the list of Materials Needed helpful? If no, please write comments directly on text.

5. How would you characterize the pupils' reactions to the Module on the following scale of 1-5?

	1	2	3	4	5	
Very bored						Very interested
Disliked teaching techniques						Liked teaching techniques
Participated less than usual						Participated more than usual
Disliked more than most other units or modules						Liked more than most other units or modules

Grade 4

6. Rate the lessons on the following scale of 1-5 in terms of their importance to you and your pupils.

	Not Important				Very Important
	1	2	3	4	5
Lesson I					
Lesson II					
Lesson III					
Lesson IV					
Lesson V					

	7. How much time did you spend on each lesson?	How much time do you think is necessary to present the lesson effectively?
Lesson I	_____ minutes	_____ minutes
Lesson II	_____ minutes	_____ minutes
Lesson III	_____ minutes	_____ minutes
Lesson IV	_____ minutes	_____ minutes
Lesson V	_____ minutes	_____ minutes

Grade 4

8. Please indicate on the following scale of 1-5 how you feel about the Module in terms of the items listed.

	Negative		Neutral		Positive
	1	2	3	4	5
Overall value					
Relevance of objectives					
Accuracy of information in content					
Value of teaching techniques					
Suitability for your pupils					

9. How closely did you follow the teaching techniques included in the Module?

_____ Completely.

_____ Most of the time.

_____ Some of the time.

_____ Not at all.

Grade 4

10. Rate the teaching techniques on the following scale of 1-5, in terms of serving the objective(s) and/or purpose(s) of the related lesson.

	Did Not Use	Useless 1	2	3	4	Very Valuable 5
Almost Everyone Does	[ ]					
Poetry Building	[ ]					
Batter-Up/Alcoball	[ ]					
Free to Be	[ ]					
Pupils' Lap Book	[ ]					
Charades	[ ]					
Slogans on Your CB	[ ]					
Values Voting	[ ]					

11. Do you believe the 4th Grade portion of the Module will be an influence on the behavior (when the time comes) of the pupils who participated in it?

___ Not a bit ___ Probably ___ Definitely Yes

12. Additional comments (use reverse side, if necessary):

Evaluation by Pupils

The following form (pages 214-215) is to be administered to the pupils in the experimental (E) class immediately following completion of Lesson V.

Grade 4

Pupil's Evaluation Form

1. For the alcohol and traffic safety lessons you have just finished, please rate items 1-5 according to the following scale:

5	4	3	2	1
Strongly Agree	Agree	In the Middle	Disagree	Strongly Disagree

1) I enjoyed being in class and had fun learning. 1) _____

2) I did more in class than I usually do. 2) _____

3) I learned about alcohol and traffic safety. 3) _____

4) I liked the games we played. 4) _____

5) I learned things that will do me some good. 5) _____

2. Complete the following sentences:

1) I liked this alcohol program because ....

2) My favorite thing was ....

3) I didn't like ....

4) I wish we did more of ....

5) The three most important things I learned were ....

6) I think it's important to learn about alcohol because ....

Grade 4

Pupil's Evaluation Form, continued

3. Please rate activities 1-8 according to the following scale:

5	4	3	2	1
Excellent	Good	Average	Fair	Poor

1) Film *Almost Everyone Does* (ways to feel good without using drugs) 1) _____

2) *Poetry Building* (writing a poem) 2) _____

3) *Batter-Up/Alcoball* (baseball game) 3) _____

4) Filmstrip *Free to Be* (pictures of nature and relaxing activities) 4) _____

5) Making a *Lap Book* (from pictures of what we enjoy doing) 5) _____

6) Playing *Charades* (mimicking adult behaviors described on cards) 6) _____

7) Writing *Slogans on Your CB* 7) _____

8) *Values Voting* (voting "yes" or "no" on decisions about drinking) 8) _____

Results

A total of 125 teachers from all grade levels responded as requested. In addition to completing the rating scales, they provided hundreds of modifications, comments and suggestions, mainly editorial and/or relating to the test batteries. (The latter were incorporated as appropriate in Section Two of this Appendix.) The teachers were highly supportive of the need for the Module, very favorably impressed by its organization and techniques, and convinced of its practicality, value and potential for doing something about the problems to which it is addressed.

While the vast majority of teachers answered all questions, a few of them skipped one or more. The teachers unanimously said that the Introduction gave sufficient indication of the "whys" and "hows" of the Module and that it needed no improvement. With one exception the teachers found the description of Organization by Grade Level to be clear. The lone dissenter (a Kindergarten teacher) did not elaborate.

Again with one of their numbers excepted, the teachers found Appendix A -- Professional References with Selected Annotations to be helpful. While the great majority said it contained sufficient references, three Kindergarten teachers requested additional references. One first grade teacher provided three new references and one of these was added to the Appendix A that appears in the final version of the Module.

Two other suggestions were considered but not honored by the authors. A first grade teacher suggested inviting speakers to class from Alcoholics Anonymous and from community mental health organizations. In view of the objectives for the first grade portion of the Module, the authors thought this would be rushing things and consuming time more appropriately spent otherwise. A second grade teacher suggested grouping the references by grade level. As these references are intended for teachers (not pupils) this format did not seem practical.

One hundred and five teachers said Appendix B -- Evaluation Summary was valuable, six said it was not and 14 did not answer this question. No one suggested additions or deletions for improving the Appendix. This relatively lower support by some of the teachers confirmed an uneasiness about evaluation and study design displayed at the field-testing training workshops. It is possible that more time should have been spent explaining this aspect -- one with which most elementary teachers typically need more help and reassurance.

As will be reported more fully elsewhere, whatever uncertainties and anxieties some of the teachers had in this area were heightened by the test batteries themselves. Therefore the authors have tried to provide as much helpful information as they believe appropriate in Section Two of this Appendix, which contains the test batteries and instructions for their administration and scoring.

The rating scales (questions 5, 6 and 8 of the Teachers' Evaluation Form) on pages 210-212 were intended for use at specific grade levels. However, they comprise the same items for all grades and can be used to show the combined ratings of all teachers representing all grade levels -- a general indication of how the total of the teachers involved in field testing evaluated the Module in specific quantifiable ways. The results shown in Tables I, II and III reveal very high means and heavy loadings at the upper end of the scales.

TABLE I

TEACHERS' RESPONSES TO QUESTION FIVE (ITEMS 1-4) OF THE TEACHER'S EVALUATION FORM BY MEAN ($\overline{X}$)* AND TOTAL PERCENTAGE, FOR ALL STATES AND GRADES COMBINED (N=125)

Item	Omitted	%				
		1	2	3	4	5
1. Very bored/interested ($\overline{X}$=4.54)	2.4	0.0	0.8	5.6	31.2	60.0
2. Disliked/liked teaching techniques ($\overline{X}$=4.47)	2.4	0.0	0.8	8.0	33.6	55.2
3. Participated less/more than usual ($\overline{X}$=4.21)	2.4	0.0	1.6	16.8	38.4	40.8
4. Disliked/liked more than most other units or modules ($\overline{X}$=4.15)	4.8	0.0	0.8	23.2	32.0	39.2

*Excluding omits.

Table I reflects highly interested pupils, very much enjoying the teaching techniques of the Module, participating in class more than usual and liking it.

The authors have speculated about the slight decline of means for items 3 and 4. This might be due in part to the fact that items 1 and 2 suggest no comparison to non-Module lessons and activities led by the teachers, whereas items 3 and 4 do. Or the lower ratings might relate to the general directional decline the authors have noted on most of the scales as one moves from the first item to the last.

TABLE II

TEACHERS' RESPONSES TO QUESTION SIX (ITEMS 1-5)
OF THE TEACHER'S EVALUATION FORM
BY MEAN ($\bar{X}$)* AND TOTAL PERCENTAGE,
FOR ALL STATES AND GRADES COMBINED (N=125)

Item	Omitted	Not Important 1	2	% 3	4	Very Important 5
1. Lesson I ($\bar{X}$=4.51)	2.4	0.8	0.8	11.2	20.0	64.8
2. Lesson II ($\bar{X}$=4.31)	4.0	0.0	3.2	12.0	32.8	48.0
3. Lesson III ($\bar{X}$=4.31)	3.2	0.8	1.6	13.6	32.0	48.8
4. Lesson IV ($\bar{X}$=4.07)	3.2	2.4	4.0	16.0	36.0	38.4
5. Lesson V ($\bar{X}$=4.16)	4.0	4.0	4.8	12.0	26.4	48.8

*Excluding omits.

Table II shows that teachers regard all five lessons as at least fairly close to very important. However the same general directional decline from items 1 through 5 can be noted. It could be that as the excitement of the newness of the Module diminishes, teachers wind down their enthusiasm about it. The authors nevertheless scrutinized all available data by grade level to determine what changes might be made to enhance teachers' perception of the importance of later lessons.

TABLE III

TEACHERS' RESPONSES TO QUESTION EIGHT (ITEMS 1-5) OF THE TEACHER'S EVALUATION FORM BY MEAN ($\overline{X}$)* AND TOTAL PERCENTAGE, FOR ALL STATES AND GRADES COMBINED (N=125)

Item	Omitted	Negative		% Neutral		Positive
		1	2	3	4	5
1. Overall Value ($\overline{X}$=4.76)	0.8	0.0	0.0	4.0	16.0	79.2
2. Relevance of Objectives ($\overline{X}$=4.66)	1.6	0.0	0.0	6.4	20.8	71.2
3. Accuracy of Information in Content ($\overline{X}$=4.79)	1.6	0.0	0.8	0.8	16.8	80.0
4. Value of Teaching Techniques ($\overline{X}$=4.44)	0.8	1.6	1.6	8.0	28.8	59.2
5. Suitability for Your Pupils ($\overline{X}$=4.42)	1.6	0.0	4.0	9.6	25.6	59.2

*Excluding omits.

Table III suggests that from the combined viewpoint of all of the field test teachers, the Module is valuable, relevant, and accurate with teaching techniques and all other aspects valuable and suitable for their pupils.

Pupils' Evaluation of the Module

Pupils in grades 4-6 made their own evaluation of the Module through open-ended questions and rating scales (similar to those shown on pages 214-215 for grade 4). However, there seemed little benefit in combining different grade pupils' ratings for generic items as we did with those of teachers, for there were so few pupil items and most ratings were based on activities whose nature was highly specific by grade level. Therefore evaluations by pupils in grades 4-6 are incorporated in the total report of results for each of those grades.

The authors felt that such written evaluations were not practical for pupils in grades K-3, and therefore did not seek any.

Evaluation Through *Pre-Posttest* Batteries

The *Alcohol Education and Traffic Safety Module for Elementary School, Kindergarten Through Sixth Grade* was systematically developed with the assistance of appropriate professionals. An extensive literature search and the professional experiences of the authors served as the beginning basis for writing objectives and content, and for creating and selecting teaching techniques. Objectives and content were then systematically submitted to two groups: (1) 20 theoreticians in alcohol and traffic safety education who identified and clarified objectives; and (2) 321 experienced elementary school teachers from 35 schools in seven states who rated objectives and related content for appropriateness at particular grade levels. Results from both groups were used in creating a preliminary version of the Module and are reported more fully elsewhere.[1]

With the objectives and content in place by grade level, the authors then selected, adapted or created teaching techniques appropriate for the learning and motivational characteristics of the children at each grade level. The combined program was organized as five lessons for each grade from Kindergarten through sixth, and pilot-tested at three elementary schools and one school system (with grades selected from four schools) in two states by 23 teachers and 360 pupils. Results were used to form the field-testing version of the Module.

The authors then prepared preliminary *pre/post* test batteries by writing items for each specific objective by grade level. These batteries were administered to at least 70 pupils in each grade to determine item reliability and suitability. The best items were then chosen for the field-testing version of *pre/post* batteries.

With the field-testing Module and related test batteries in hand, 290 elementary teachers (K-6) were trained in the presentation of the Module and in the administration of test batteries appropriate to their grade level. The teachers were asked to critique the Module page by page and in terms of its major components. Moreover, through quantifiable evaluative scales and responses to open-ended questions, they evaluated the portion of the Module implemented at their specific grade level. Further, through scales and responses to open-ended questions, pupils in grades 4-6 evaluated various aspects of the Module implemented at their respective grades. The results of these teacher and pupil evaluations are reported elsewhere in this Appendix. They show that, from the perspective of field-testing teachers and pupils, the Module is valuable and practical at all grade levels.

---

[1] Carole L. Donovan, "Development of Objectives and Content for a Module in Alcohol Education and Traffic Safety in the Elementary School Grades K-6." (Unpublished Doctoral Dissertation, Teachers College, Columbia University, 1980). 285 pages.

However, while the careful developmental process combined with the evaluations described led those involved to believe the Module to be worthwhile, they recognized the additional need for hard data to answer the question, "What is the grade by grade effect of the Module on pupils' change relative to the specific objectives of the Module for each grade?" Theoretically the Module seemed valuable. But to assemble empirical evidence bearing upon the research question, an objective assessment of the Module's effectiveness was undertaken. Test batteries were applied within a carefully controlled experimental design to 5,687 elementary school pupils in eight states.

Method

A description follows of the sample and its selection, instrumentation, research paradigm, training of teachers, data collection and analysis of data.

Sample. With generalizability of findings in mind, a national sample (N=5687) was selected from 51 schools in 25 cities in eight states: California (10 schools); Maine (9); Minnesota (4); Nebraska (3); New Jersey (7); New York (6); Ohio (8); Vermont (4). The schools were selected to represent diverse geographical areas and population characteristics. There were 3051 pupils in the experimental sample and 2636 in the control. The breakdown by size of experimental and control groups, by state and by grade level is shown in Table IV. In all cases,

TABLE IV

SAMPLE SIZE FOR EXPERIMENTAL AND CONTROL GROUPS AT EACH GRADE LEVEL, BY STATE, KINDERGARTEN THROUGH SIXTH GRADE

GRADE	California		Maine		Minnesota		Nebraska		New Jersey		New York		Ohio		Vermont		Total	
	Exp	Con	Exp	Con	Exp	Con	Exp	Con	Exp	Con	Exp	Con	Exp	Con	Exp	Con	Exp	Con
K	67	69	78	69	21	10	72	48	20	22	50	44	60	59	60	43	428	364
1	50	46	70	72	18	19	37	35	30	38	50	48	40	49	46	28	341	335
2	50	60	62	46	31	30	0	0	33	32	53	84	60	51	51	48	340	351
3	45	45	87	87	22	24	61	47	69	50	69	54	59	58	50	57	462	422
4	26	24	71	61	75	67	66	46	53	58	66	39	40	43	53	35	450	373
5	45	38	83	58	41	21	76	38	79	51	57	41	93	83	61	62	535	392
6	90	64	94	63	24	23	60	39	71	87	59	53	39	17	58	53	495	399
TOTAL	373	346	545	456	232	194	372	253	355	338	404	363	391	360	379	326	3,051	2,636

experimental and control groups were taken from the same school system. With an average class size of 19, the sample comprised a total of 300 classes distributed from Kindergarten through sixth grade. Both experimental and control classes took *pre/post* test batteries, but only the experimental groups were exposed to that portion of the Module appropriate for their respective grade levels.

Instrumentation. The authors prepared preliminary *pre/post* test batteries by writing items for each specific objective by grade level. There were actually seven test batteries, one for each grade. Together they measured change in the 24 specific objectives of the total K-6 Module. The 24 objectives (pages 14-17) were assigned to grades as follows:

Grade	Objectives
Kindergarten	1
First Grade	2, 7
Second Grade	3, 4, 5, 8
Third Grade	9, 10, 11
Fourth Grade	14, 15, 16, 17
Fifth Grade	6, 12, 18
Sixth Grade	13, 19, 20, 21, 22, 23, 24

The preliminary test batteries, totaling 575 items, were organized as test booklets and administered to 706 pupils in a pilot test in four school districts in two states. The number of pupils by grade follows:

Grade	Number of Pupils
Kindergarten	71
First Grade	72
Second Grade	95
Third Grade	133
Fourth Grade	116
Fifth Grade	110
Sixth Grade	109
Total	706

Pilot-test data were collected and subjected to routine item analysis.[1] Items selected for use in the subsequent field-testing version of the test battery were chosen primarily on the basis of the following criteria:

1. A difficulty rating of 0.71 or lower.
2. A discrimination index of +0.30 or above.

In addition, responses and comments from the teachers who had administered the pilot-test battery were used to select or improve items and to clarify testing procedures. One major outcome of the data and comments was the drastic shortening of the batteries, some of which seemed much too long to be practical, especially where an overabundance of items was found for one specific objective. A summary of the selection and reduction results by number of booklets and the total number of items contained, follows by grade level.

---

[1] Computer printouts of pilot test item data are stored for the present at the Safety Research and Education Project at Teachers College, Columbia University. A description of what is stored appears in Appendix C.

	Pilot-test Version		Field-test Version	
Grade	Booklets	Items	Booklets	Items
Kindergarten	4	47*	1	20
First	5	52*	3	27
Second	3	70	2	30
Third	2	55	2	30
Fourth	2	67	2	47
Fifth	4	93	2	66
Sixth	4	191	3	90
Total	24	575	15	310

*At Kindergarten 17 items measured purposes rather than objectives, and 19 items did similarly at First grade; all such items were eliminated.

While the test batteries were organized as test booklets, the authors decided there should be at least five items to measure change in each of the 24 specific objectives of the total Module. The reduction from pilot-test to field-test version, of the number of items for each objective follows:

Specific Objective	Number of Items in Pilot-test Version	Number of Items in Field-test Version
1	30	20
2	15	15
3	14	5
4	17	5
5	14	5
6	13	9
7	18	12
8	25	15
9	19	10
10	22	10
11	14	10
12	34	27
13	16	14
14	32	17
15	14	10
16	9	9
17	12	11
18	46	30
19	23	16
20	53	6
21	25	12
22	32	12
23	22	13
24	20	17
Total	539	310

The field-testing version of the test batteries, with instructions for administration, appear in Section Two of this Appendix. The authors have marked the correct answers. The score in all cases is the number correct. Those wishing to use the batteries for program evaluation may find the procedures described in the remainder of this Appendix helpful as a guide.

Table V gives the Alpha Reliability Coefficients (internal consistency) for all test booklets. Table VI shows test-retest reliability coefficients for all test booklets; Table VII for specific objectives 1-24.

TABLE V

ALPHA RELIABILITY COEFFICIENTS:
MEASURES OF INTERNAL CONSISTENCY FOR TEST BOOKLETS,
GRADES KINDERGARTEN THROUGH SIXTH

Booklets	Pretest		Posttest	
	Experimental Group	Control Group	Experimental Group	Control Group
Kindergarten Booklet	.90	.82	.90	.89
Grade 1				
Booklet I	.16	.13	.68	.34
Booklet II	.37	.37	.22	.35
Booklet III	.39	.49	.58	.52
Grade 2				
Booklet I	.81	.74	.84	.78
Booklet II	.82	.79	.82	.81
Grade 3				
Booklet I	.55	.45	.73	.56
Booklet II	.63	.52	.70	.54

TABLE V (continued)

Booklets	Pretest Experimental Group	Pretest Control Group	Posttest Experimental Group	Posttest Control Group
Grade 4				
Booklet I	.78	.68	.79	.79
Booklet II	.23	.15	.32	.32
Grade 5				
Booklet I	.43	.35	.61	.53
Booklet II	.65	.62	.68	.63
Grade 6				
Booklet I	.57	.51	.61	.55
Booklet II	.71	.73	.81	.75
Booklet III	.42	.41	.51	.40

TABLE VI

RELIABILITY COEFFICIENTS: CORRELATIONS BETWEEN PRETEST AND POSTTEST SCORES FOR CONTROL GROUPS FOR ALL BOOKLETS GRADES K-6

Booklets	Reliability Coefficient
Kindergarten Booklet	.69
First Grade	
Booklet I	.35
Booklet II	.39
Booklet III	.49
Total Booklets	.53
Second Grade	
Booklet I	.65
Booklet II	.68
Total Booklets	.67

TABLE VI (continued)

Booklets	Reliability Coefficient
Third Grade	
Booklet I	.54
Booklet II	.58
Total Booklets	.61
Fourth Grade	
Booklet I	.62
Booklet II	.45
Total Booklets	.63
Fifth Grade	
Booklet I	.54
Booklet II	.57
Total Booklets	.62
Sixth Grade	
Booklet I	.47
Booklet II	.68
Booklet III	.50
Total Booklets	.71

TABLE VII

RELIABILITY COEFFICIENTS: CORRELATIONS BETWEEN PRETEST AND POSTTEST SCORES FOR CONTROL GROUPS FOR SPECIFIC OBJECTIVES 1-24

Specific Objective	Reliability Coefficient
1	.69
2	.48
3	.51
4	.47
5	.50
6	.52
7	.54
8	.64
9	.45
10	.47
11	.40
12	.52
13	.35
14	.50
15	.45
16	.42
17	.45
18	.49
19	.52
20	.35
21	.55
22	.62
23	.54
24	.40

One goal of program evaluation is to see where the program is succeeding and where it is falling short in terms of its objectives. To facilitate this process Table VIII lists the specific objectives for the total Module, the grade at which they are measured, the test booklet which contains the items to measure them (with the total number of items in that booklet listed in parentheses), and the specific items in the booklet used to measure the indicated objective.

TABLE VIII

LOCATION OF TEST ITEMS TO MEASURE
SPECIFIC OBJECTIVES 1-24

Objective	Grade	Booklet	Items
1	Kindergarten	I (20)*	1-20
2	First Grade	I (10)	1-10
	First Grade	III (12)	1, 2, 4, 5, 10
3	Second Grade	I (20)	1-5
4	Second Grade	I (20)	6-10
5	Second Grade	I (20)	11-15
6	Fifth Grade	I (22)	1-9
7	First Grade	II (5)	1-5
	First Grade	III (12)	3, 6, 7, 8, 9, 11, 12
8	Second Grade	I (20)	16-20
	Second Grade	II (10)	1-10
9	Third Grade	I (20)	1-5
	Third Grade	II (10)	1-5
10	Third Grade	I (20)	6-15

TABLE VIII (continued)

Objective	Grade	Booklet	Items
11	Third Grade Third Grade	I (20) II (10)	16-20 6-10
12	Fifth Grade Fifth Grade	I (22) II (44)	10-22 1-14
13	Sixth Grade	II (74)	55-68
14	Fourth Grade Fourth Grade	I (40) II (7)	1-10 1-7
15	Fourth Grade	I (40)	11-20
16	Fourth Grade	I (40)	21-29
17	Fourth Grade	I (40)	30-40
18	Fifth Grade	II (44)	15-44
19	Sixth Grade Sixth Grade	II (74) III (11)	50-54 1-11
20	Sixth Grade	II (74)	69-74
21	Sixth Grade Sixth Grade	I (5) II (74)	1-5 1-7
22	Sixth Grade	II (74)	8-19
23	Sixth Grade	II (74)	20-32
24	Sixth Grade	II (74)	33-49

*The total number of items in a booklet appears in parentheses.

The mean time it took teachers to administer the test booklets for each grade was computed for all states combined. Table IX shows these times.

TABLE IX

MEAN TIME FOR ADMINISTRATION OF TEST BOOKLETS, BY GRADE, ALL STATES COMBINED

Grade	Booklet	Mean Time*
Kindergarten	I	20 (20)**
First	I	14
	II	11
	III	12 (37)**
Second	I	18
	II	16 (34)**
Third	I	13
	II	11 (24)**
Fourth	I	18
	II	14 (32)**
Fifth	I	22
	II	19 (41)**
Sixth	I	6
	II	23
	III	11 (40)**

*in minutes

**Total for all booklets for one grade

Research Paradigm. The study was conducted in intact classes at various schools. The authors worked with the teachers to select classes in such a way that experimental and control groups would be similar. To this end, where possible, experimental and control classes were taken from the same schools, or school district. However, the necessity of using intact classes precluded assembling experimental and control groups randomly from a common population.

A pretest-posttest control group research design was chosen to measure the effect of the Module on students' learning. This design employed two groups of subjects at each grade level, one called the "experimental group" and the other the "control group." The treatment of the experimental and control groups was kept as close to identical as possible with the exception that the experimental group was exposed to the *Alcohol Education and Traffic Safety Module*. The posttest change of the experimental group that was over and above the change that occurred in the control group was attributed to the Module.

This paradigm may be illustrated as follows:

$$\begin{array}{cccc} E & O_1 & X & O_3 \\ C & O_2 & & O_4 \end{array}$$

where E = Experimental Group

O_1, O_2 = Pretests for E and C, respectively

X = The Module

O_3, O_4 = Posttests for E and C, respectively

Training of Teachers. Orientation and training sessions for teachers who agreed to test the Module were held at nine training sites in eight states: California (two sites), Maine, Minnesota, Nebraska, New Jersey, New York, Ohio and Vermont. Teachers of the control classes (where the pupils were given *pre/post* test batteries but no Module) also attended the training sessions. In all, across the country, a total of 290 teachers participated. Some had volunteered; others were designated by their supervisors.

As many as fifteen individuals attended from a participating school: two teachers from each of grades K through sixth and one health/safety coordinator. From other schools, considerably fewer teachers attended, primarily because of fewer grade levels at that school or because there was only one teacher per grade level (or because the school could not deplete its staff beyond a certain point). Most Kindergarten teachers administered both experimental and control test batteries for their grade level, for they taught both a morning and afternoon Kindergarten class. Trained teachers from 51 schools across the country participated in the field-testing of the Module.

A training session began with a meeting of all participants and the training staff. At all sites the training staff comprised Mr. Sam Yaksich, Jr., Executive Director of the AAA Foundation for Traffic Safety (sponsor of the study) and Dr. Monica Homer and Mrs. Marilynn Kennell of Adelphi University (two of the authors of the Module). The purpose of the training session was described, as was the development and objectives of the Module, the role of the teachers in the field-testing presentation of the Module, and the administration of the related test batteries.

Following the plenary meeting, teachers were divided into three groups by grade level: K-2, 3-4, 5-6. Each group met at some point with each of the three members of the training staff. Mr. Yaksich handled all evaluation details, including the administration of *pre/post* test batteries to experimental and control groups. Dr. Homer and Mrs. Kennell described and demonstrated the presentation of the Module at the various grade levels. Teachers then returned to a plenary meeting for a discussion period and for the distribution of all materials necessary to the presentation and evaluation of the Module at their respective grade levels.

In preparation for the training session all materials were packaged for easy and systematic distribution. Instructions were explicitly written for all phases of teacher involvement in field-testing, and teachers were urged not to leave the session until they clearly understood what they were to do, why, when and how. The format for the sessions was standardized. They were conducted in late afternoon, early evening or Saturday and generally lasted approximately four hours.

Data Collection. Teachers received detailed written instructions concerning their role in data collection, including how the tests were to be administered, collated, etc. (See Section II of this appendix.) The pretests were administered to experimental and control groups immediately before the Module. Posttesting for both groups occurred immediately following completion of the Module by the experimental group. Completed test batteries were organized by the teachers and given to a local representative of the American Automobile Association (AAA) for inspection and record keeping. The AAA representative then sent the materials to Teachers College, Columbia University for processing and analysis.

Analysis of Data. Data checking necessarily preceded data analysis. The first task was to collate pre- and post-test materials for each subject. In some cases the subjects were identified by name, in others by a code number. If either a pre- or a post-test booklet was missing (or could not be matched with certainty), the subject was coded "incomplete" and no test battery data provided by that subject were used in the study. The most frequent reason for a missing test booklet was absence on the day it was administered.

Data were then keypunched and verified. Any test booklet with fewer than 80 percent of the questions answered was deleted. Scoring was based on the number right.

Items to measure the 24 specific objectives were organized by test booklets according to the format of the item. Thus, a test booklet could contain items to measure one objective (or a part thereof) or more than one objective (Table VIII, pages 231-232).

Pre/post test mean and posttest adjusted mean scores were computed for the total of test booklets and for each specific objective, for each grade level, by state and for all states, for both experimental and control samples. Posttest data were analyzed using an analysis of covariance with the pretest as the covariate.

Results

Overall. A summary of significant differences between experimental and control groups as measured by total score on all test booklets, by grade level for all states, is found in Table X. As shown, there was significant positive change in favor of pupils at all grade levels who were exposed to the Module when compared to those at the same level who

TABLE X

SUMMARY OF SIGNIFICANT DIFFERENCES BETWEEN EXPERIMENTAL AND CONTROL GROUPS, OVERALL AND BY STATE, FOR TOTAL SCORE ON ALL TEST BOOKLETS COMBINED AT EACH GRADE LEVEL, KINDERGARTEN THROUGH SIXTH

Grade	Overall	California	Maine	Minnesota	Nebraska	New Jersey	New York	Ohio	Vermont
K	*	NS	NS	NS	*	NS	NS	*	NS
1	***	***	***	***	**	***	***	***	**
2	***	NS	NS	**	X	NS	***	*	*
3	***	***	**	NS	**	NS	***	NS	*
4	**	***	**	NS	NS	NS	NS	NS	NS
5	***	***	***	***	***	***	***	***	***
6	***	***	**	***	***	***	***	*	***

* = $p < .05$
** = $p < .01$
*** = $p < .001$
NS = Not Significant
X = No Data

were not (p < .05 for K, .01 for fourth grade, .001 for the remainder).

A summary of significant differences between experimental and control groups for the 24 specific objectives, by grade level for all states combined, appears in Table XI. Of the 24 objectives, 18 showed significant positive change favoring the experimental group (14 at p < .001, two at < .01, two at < .05). Six did not show a significant difference (but one came close at < .10) between experimental and control groups (and three of these were in fourth grade).

TABLE XI

SUMMARY OF SIGNIFICANT DIFFERENCES BETWEEN
EXPERIMENTAL AND CONTROL GROUPS, BY GRADE LEVEL,
ALL STATES COMBINED, FOR THE 24 SPECIFIC OBJECTIVES

Grade	Objective ( )[1]			Grade	Objective ( )[1]		
K	1	(1)	*	4	1	(14)	***
					2	(15)	NS
1	1	(2)	***		3	(16)	NS
	2	(7)	**		4	(17)	NS
2	1	(3)	**	5	1	(6)	***
	2	(4)	NS		2	(12)	***
	3	(5)	*		3	(18)	***
	4	(8)	***				
				6	1	(21)	NS
3	1	(9)	***		2	(22)	***
	2	(10)	***		3	(23)	***
	3	(11)	***		4	(24)	***
					5	(19)	***
					6	(13)	***
					7	(20)	NS

[1] Number in parentheses is that of specific objective as it appears in list on pages 14-17 for overall Module as opposed to its number by grade level.

* = p < .05
** = p < .01
*** = p < .001
NS = Not Significant

Another way to look at the specific objectives is by strength of the Module's impact on them, and Table XII lists them in rank order.

TABLE XII

RANK ORDER OF THE IMPACT OF THE MODULE ON SPECIFIC OBJECTIVES BY RATIO BETWEEN THE DIFFERENCE IN ADJUSTED POSTTEST MEAN SCORES FOR EXPERIMENTAL AND CONTROL GROUPS AND THE AVERAGE STANDARD DEVIATION FOR THE POSTTEST

Rank	Specific Objective*	Ratio
1	2	1.21
2	12	.68
3	19	.67
4	6	.60
5	13	.48
6	7	.42
7	10	.41
8	24	.39
9	18	.35
10	8	.32
11	9	.32
12	23	.32
13	11	.24
14	14	.24
15	22	.22
16	3	.20
17	5	.16
18	17	.11
19	1	.10
20	15	.08
21	20	.05
22	4	.02
23	21	-.01
24	16	-.03

*As numbered on pages 14-17.

The *pre/post* test battery results described above for the overall Module were examined carefully to see how the effectiveness of the Module might be improved. However, because the Module is actually seven modules (one for each grade level, K-6), a special effort was made to examine all data and results by grade level (by state and even by school, in some cases) to see what changes might be suggested when teacher and pupil evaluations and comments were compared with each other and with test battery results. Thus, detailed *pre/post* test battery results for each grade have been presented along with teacher evaluations and pupil evaluations for that grade.

From a synthesis of these inputs a summary is given that highlights the changes from the field-testing version of the Module to the final version.

KINDERGARTEN

Teacher Evaluations

Overall K-6 Module

Teachers unanimously said that the Introduction gave sufficient indication of the "whys" and "hows" of the Module (15-0). None of the teachers had remarks about how the Introduction might be improved. Most teachers felt that the description of the Organization by Grade Level (page 20) was clear (14-1). The lone dissenter did not elaborate.

With regard to Appendix A, all teachers found it helpful (15) and three of them indicated a desire for additional references. However, no additional references were offered by the teachers.

Looking at Appendix B, 11 teachers found the summary valuable and none had suggestions as to what to add or leave out to improve its usefulness.

Kindergarten Module

Six teachers indicated that the *pre/post* test batteries can be used satisfactorily to measure the effectiveness of the Module. The remainder did not respond to this question. However, remarks regarding the tests state that the children: (1) don't understand left to right progression; (2) had difficulty following the test; (3) found the test too long and boring and the pictures insufficiently distinct.

As far as the Objectives are concerned, all teachers (15) found them practical and valuable. They suggested no changes. All teachers (15) found the Content clear and accurate, the Teaching Techniques helpful and clear, and the list of Materials Needed helpful.

The following answers were provided by the total of 15 (except where otherwise stated) Kindergarten teachers at the field-testing sites.

How would you characterize the pupils' reactions to the Module on the following scale of 1-5?

	1	2	3	4	5		Mean
Very bored			3	6	6	Very interested	4.20
Disliked teaching techniques			2	7	6	Liked teaching techniques	4.27
Participated less than usual		1	5	7	2	Participated more than usual	3.67
Disliked more than most other units or modules		1	4	8	2	Liked more than most other units or modules	3.73

Rate the lessons on the following scale of 1-5 in terms of their importance to you and your pupils.

	Not Important				Very Important	Mean
	1	2	3	4	5	
Lesson I			2	4	9	4.47
Lesson II		1	1	6	7	4.27
Lesson III				5	10	4.67
Lesson IV		1	3	3	8	4.20
Lesson V			6	5	4	3.87

	How much time* did you spend on each lesson?	How much time* do you think is necessary to present the lesson effectively?
Lesson I	39 minutes	42** minutes
Lesson II	35 minutes	35** minutes
Lesson III	32 minutes	29 minutes
Lesson IV	27 minutes	25 minutes
Lesson V	28 minutes	28 minutes

*Reported by mean for all states combined. Since the authors assumed the lessons for the Kindergarten Module would take about 20 minutes each, it appears that more time should be allotted, or some cutting done. The time spent on each lesson is remarkably close to the time the teacher thinks necessary.

**Several teachers indicated that this depends on the number of pupils and other circumstances.

Please indicate on the following scale of 1-5 how you feel about the Module in terms of the items listed.

	Negative		Neutral	Positive		Mean
	1	2	3	4	5	
Overall value			1	8	6	4.33
Relevance of objectives			3	6	6	4.20
Accuracy of information in content				7	8	4.53
Value of teaching techniques				8	7	4.47
Suitability for your pupils*		1	1	6	6	4.21

*One teacher did not respond.

How closely did you follow the teaching techniques included in the Module?

7 Completely

8 Most of the time

____ Some of the time

____ Not at all

Rate the teaching techniques on the following scale of 1-5, in terms of serving the objective(s) and/or purpose(s) of the related lesson. N = 14*

	Useless				Very Valuable	
	1	2	3	4	5	Mean
My Shadow	1			6	7	4.29
I'm a Special Me			2	5	7	4.36
What Makes Me Healthy?			1	4	9	4.57
Which of These Things Is Not Like the Others?		3	3	4	4	3.64
Mr. & Mrs. Smith's Shadow	1	1	1	9	2	3.71

*One teacher did not respond.

Do you believe the Kindergarten portion of the Module will be an influence on the behavior (when the time comes) of the pupils who participated in it? N = 14*

2 Not a bit   7 Probably   5 Definitely Yes

*One teacher did not respond.

Kindergarten teachers wrote a large number of comments and corrections directly on the Module, many of which were editorial. The majority of comments related to the test booklet and those are considered in Section II of this Appendix.

The *My Shadow* activity gave some teachers difficulty because of the inability of some pupils to trace each other, with the teacher having to trace everyone. Considerable other comments related to the need for more time to conduct activities properly. The authors modified the descriptions of activities to give hints of potential difficulties and how to cope with them, and increased the time allotted for all lessons from 20 to 30 minutes, closer to the time the teachers said it would take to present the lessons effectively.

Some teachers said some words were unfamiliar to the pupils or too difficult for them. In these cases, the authors added brief definitions or descriptions in parentheses after the identified words.

Formal evaluations by pupils began at fourth grade, and none were sought at Kindergarten.

Test Battery Results

The test battery for Kindergarten consisted of one booklet with 20 items. This entire booklet also measured the one specific objective for Kindergarten, "Pupils will be able to identify commonly used beverages as alcoholic or nonalcoholic." An analysis of covariance (Table XIII) found the experimental treatment to be significant ($p < .05$). As the total booklet data are identical to those for the single specific objective, a separate table for the latter would be redundant

TABLE XIII

ANALYSIS OF COVARIANCE OF SCORES FOR TEST BOOKLET EXPERIMENTAL VS. CONTROL GROUPS, GRADE K

Source	DF	Mean Square	F
Treatment	1	14.07911	4.08*
Covariate	1	2781.41281	806.37
Error	789	3.44931	--

*$p < .05$

Table XIV shows a high pretest mean for both experimental and control groups. Apparently Kindergarten pupils already are able to differentiate alcohol and nonalcoholic beverages. These high initial scores suggest a "ceiling effect" for the test booklet. The initial mean score of 17+ is so close to the maximum possible score of 20, that there is little room for the posttest booklet score to measure improvement. This is probably one reason that while all states combined showed significant results, only Nebraska and Ohio individually were significant (at $p < .05$). The smaller the sample size the more likely it is that the "ceiling effect" will reduce the changes of significant differences between experimental and control groups.

Whatever the reason, the adjusted mean gain for the experimental group is 1.16, a little over one-third of a standard deviation, and, while significant at .05, not very large. In fact, in Table XII, page 240, its rank is 19 of 24 objectives.

TABLE XIV

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS FOR TEST BOOKLET AND SPECIFIC OBJECTIVE 1, FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE K

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	428	17.24	3.45	18.25	2.66	18.40
Con	364	17.80	2.75	18.32	2.61	18.14

In addition to the one specific objective, the Kindergarten Module had five purposes (presently used to review or lead into or contribute to a base for objectives). To measure pupil growth through the Module, some of the purposes might well be converted to objectives and have test items written to measure them, or other evaluative techniques might be employed to take purposes into consideration. This is not an easy task, for written measures are difficult for Kindergarten pupils and oral measures can be cumbersome, overly time-consuming and costly to administer.

The high ability of Kindergarten pupils to recognize alcoholic beverages before being exposed to the Module should relieve the concern of the few experts who felt beginning a Module at Kindergarten might be rushing things a bit.

Summary

Evaluations by teachers and *pre/post* test battery results yielded the following changes in the Kindergarten Module:

1. Time for lessons was increased from 20 to 30 minutes.

2. Words unfamiliar to pupils were described or defined in parentheses immediately after the word.
3. Descriptions of *My Shadow* and other techniques that gave some teachers some difficulty were modified to give hints of potential difficulties and how to cope with them.

FIRST GRADE

Teacher Evaluations

Overall K-6 Module

All (19) first grade teachers believed that the Introduction gave a sufficient rationale for the Module and that it did not need improvement. They all also found the description of the Organization by Grade Level to be clear.

Sixteen teachers found Appendix A to be helpful and to contain sufficient references. One teacher suggested three additional references; one of these was added to the revised Appendix A.

Fourteen teachers said Appendix B was valuable and none had suggestions to improve its usefulness.

First Grade Module

Ten teachers said the pre/post test batteries were a satisfactory measure of the effectiveness of the Module. Two were dissatisfied with the batteries, but did not suggest a better way to evaluate.

All (19) teachers found the Objectives practical and valuable. Further, all indicated that the overview of content was clear and accurate, that the description of Teaching Techniques was helpful and clear and that the list of Materials Needed was helpful.

The following answers were provided by the total of 19 (except where otherwise stated) first grade teachers at the field-testing sites.

How would you characterize the pupils' reactions to the Module on the following scale of 1-5?

	1	2	3	4	5		Mean
Very bored			2	7	10	Very interested	4.42
Disliked teaching techniques		1	2	5	11	Liked teaching techniques	4.37
Participated less than usual			4	4	11	Participated more than usual	4.37
Disliked more than most other units or modules			6	5	8	Liked more than most other units or modules	4.11

Rate the lessons on the following scale of 1-5 in terms of their importance to you and your pupils.

	Not Important				Very Important	
	1	2	3	4	5	Mean
Lesson I			2	4	13	4.58
Lesson II*			5	7	5	4.00
Lesson III**	1	1	1	6	9	4.17
Lesson IV**	2	2		7	7	3.83
Lesson V*	3	3		7	4	3.35

*Two teachers did not answer.
**One teacher did not answer.

How much time* did you spend on each lesson?		How much time* do you think is necessary to present the lesson effectively?
Lesson I	26 minutes	28 minutes
Lesson II	26 minutes	25 minutes
Lesson III	26 minutes	28 minutes
Lesson IV	26 minutes	26 minutes
Lesson V	17 minutes	20 minutes

*Reported by mean for all states combined. Authors assumed lessons would take 20 minutes. While it appears that either lessons would have to be shortened or more time allotted, a first time presentation might consume more time than subsequent presentations, and the latter could come closer to that time.

Please indicate on the following scale of 1-5 how you feel about the Module in terms of the items listed.

	Negative		Neutral		Positive	
	1	2	3	4	5	Mean
Overall value			2	3	14	4.63
Relevance of objectives			2	4	13	4.58
Accuracy of information in content		1		4	14	4.63
Value of teaching techniques	1		4	2	12	4.26
Suitability for your pupils		1	3	3	12	4.37

How closely did you follow the teaching techniques included in the Module?

13 Completely.

6 Most of the time.

_____ Some of the time.

_____ Not at all.

Rate the teaching techniques on the following scale of 1-5, in terms of serving the objective(s) and/or purpose(s) of the related lesson.

	Useless				Very Valuable	
	1	2	3	4	5	Mean
Picture Selection (A) and (B)*			2	3	13	4.61
*Draw Me a Picture***		3	3	7	4	3.71
*Which of These Things Is Not Like the Others?**		2	2	5	9	4.17
*Me Tree**		3	3	5	7	3.89
Let's Pretend	1	3	5	5	5	3.53

*One teacher did not respond.
**Two teachers did not respond.

Do you believe the 1st Grade portion of the Module will be an influence on the behavior (when the time comes) of the pupils who participated in it?

____ Not a bit   15 Probably   4 Definitely Yes

First grade teachers wrote numerous comments, most of which were editorial. They also had many comments on the test batteries and these have been dealt with as appropriate in Section II of this Appendix. As with Kindergarten, the teachers felt some vocabulary of the Module was unfamiliar to their pupils. The authors consequently placed brief definitions or descriptive phrases in parentheses after the words identified. Further, the teachers felt more time was needed for most lessons, and this was increased from 20 to 30 minutes for all lessons. Lesson V did not seem to be getting the favorable response intended (mean of 3.35 on the importance scale, page 249), and the authors subsequently added considerable "processing out" detail to the *Let's Pretend* activity.

As stated earlier, formal evaluations by pupils began at grade four and none were sought from first graders.

Test Battery Results

The test battery for first grade consisted of three booklets: Booklet I had ten items; Booklet II, five items; Booklet III, twelve. When an analysis of covariance (Table XV) was carried out for the total score on all three booklets on the complete sample, the experimental group scored significantly higher than the control group ($p < .001$).

TABLE XV

ANALYSIS OF COVARIANCE OF SCORES FOR TOTAL BOOKLETS EXPERIMENTAL VS. CONTROL GROUPS, GRADE 1

Source	DF	Mean Square	F
Treatment	1	1898.06218	204.76*
Covariate	1	1442.99969	155.67
Error	673	9.26955	--

*$p < .001$

In addition, in all eight states the experimental groups scored significantly higher than the control groups (Nebraska at $p < .01$, the other seven states at $p < .001$).

Table XVI shows an experimental group adjusted mean gain of 4.15, considerably in excess of one standard deviation and a substantial gain--especially when compared with 0.76 for the control group.

TABLE XVI

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON TOTAL BOOKLETS FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 1

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	341	15.03	2.80	19.17	3.65	19.18
Con	335	15.07	2.87	15.84	3.08	15.83

At first grade, the Module had two specific objectives. Specific Objective 1, "Pupils will be able to identify alcohol as a drug," was measured by items 1-10 of Booklet I and five items in Booklet III. Analysis of covariance (Table XVII) based on these items found significant results in favor of the experimental group (p < .001).

TABLE XVII

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 1, EXPERIMENTAL VS. CONTROL GROUPS, GRADE 1

Source	DF	Mean Square	F
Treatment	1	931.53833	274.13*
Covariate	1	257.01680	75.63
Error	673	3.39819	--

*p < .001

The posttest adjusted mean gain (TABLE XVIII) was 2.70 for the experimental group compared with 0.42 for the control. The experimental gain, well in excess of one standard deviation, was substantial. This objective ranked number one of 24 objectives in Table XII, page 240.

TABLE XVIII

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS FOR SPECIFIC OBJECTIVE 1 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 1

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	341	6.77	1.90	9.48	1.77	9.47
Con	335	6.70	1.98	7.11	2.11	7.12

Specific Objective 2, "Pupils will be able to identify noticeable effects of alcohol on behavior," was measured by items 1-5 of Booklet II and 7 items in Booklet III. Although the F-ratio (Table XIX) found the treatment to be significant ($p < .001$), the posttest adjusted mean gain (Table XX) of 1.45 (approximately one half the standard deviation) was not so appreciable as that for Specific Objective 1. Yet this objective ranked sixth of 24 in Table XII.

TABLE XIX

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 2, EXPERIMENTAL VS. CONTROL GROUPS, GRADE 1

Source	DF	Mean Square	F
Treatment	1	164.68696	29.97*
Covariate	1	132.44932	24.11
Error	673	5.49428	--

*p < .001

TABLE XX

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 2 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 1

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	341	8.26	1.97	9.70	2.78	9.71
Con	335	8.36	1.74	8.73	1.89	8.72

Summary

Evaluations by teachers and *pre/post* test battery results yielded the following changes in the First Grade Module:

1. Time for each of the five lessons was increased from 20 to 30 minutes.
2. Words unfamiliar to pupils were described or defined in

parentheses immediately after the word whenever it appeared.

3. Lesson V was "beefed up" by the addition of considerable "processing out" details to *Let's Pretend*.

Pre/post test results, combined with high teacher ratings, gave strong support for the value of the First Grade Module, even in the field-testing version. Analysis of covariance for total scores on the three test booklets for first grade showed significant results in favor of the experimental group ($p < .001$); the same was true for Specific Objective 1 ($p < .001$) and Specific Objective 2 ($p < .001$). It seems the First Grade Module is ready to achieve its objectives.

SECOND GRADE

Teacher Evaluations

Overall K-6 Module

Teachers (16) unanimously said that the Introduction adequately stated the "whys" and "hows" of the Module, and all found the description of the Organization by Grade Level to be clear.

Fifteen teachers found Appendix A helpful; while none wanted additional references, one suggested grouping them by grade level. (The grouping suggestion was not followed because the references are intended for teachers not pupils, and was otherwise impractical.) Thirteen teachers said Appendix B was valuable; three did not respond to this question and no one suggested any deletions or additions.

Second Grade Module

Twelve teachers found the *pre/post* test batteries satisfactory for measuring the effectiveness of the Module; nobody suggested a better alternative. All teachers declared the Objectives, Content, Teaching Techniques and Materials Needed sections practical, valuable, clear, accurate and helpful.

The following answers were provided by the total of 16 (except as otherwise indicated) second grade teachers at the field-testing sites.

How would you characterize the pupils' reactions to the Module on the following scale of 1-5?

	1	2	3	4	5		Mean
Very bored		1		3	12	Very interested	4.63
Disliked teaching techniques			1	5	10	Liked teaching techniques	4.56
Participated less than usual			5	3	8	Participated more than usual	4.19
Disliked more than most other units or modules			7	2	7	Liked more than most other units or modules	4.00

Rate the lessons on the following scale of 1-5 in terms of their importance to you and your pupils.

	Not Important				Very Important	
	1	2	3	4	5	Mean
Lesson I			2	5	9	4.44
Lesson II			1	5	10	4.56
Lesson III			1	7	8	4.44
Lesson IV	1		3	6	6	4.00
Lesson V	1	1		5	9	4.25

	How much time* did you spend on each lesson?	How much time* do you think is necessary to present the lesson effectively?
Lesson I	29 minutes	28 minutes
Lesson II	28 minutes	24 minutes
Lesson III	27 minutes	26 minutes
Lesson IV	28 minutes	30 minutes
Lesson V	23 minutes	24 minutes

*Reported by mean for all states combined.

Please indicate on the following scale of 1-5 how you feel about the Module in terms of the items listed. (One teacher did not respond to any of these items, leaving N = 15.)

	Negative		Neutral		Positive	
	1	2	3	4	5	Mean
Overall value					15	5.00
Relevance of objectives				2	13	4.87
Accuracy of information in content				2	13	4.87
Value of teaching techniques			1	5	9	4.53
Suitability for your pupils		1	1	4	9	4.40

How closely did you follow the teaching techniques included in the Module?

10 Completely.

5 Most of the time.

1 Some of the time.

____ Not at all.

Rate the teaching techniques on the following scale of 1-5, in terms of serving the objective(s) and/or purpose(s) of the related lesson.

	Useless				Very Valuable	
	1	2	3	4	5	Mean
Picture Selection (A) and (B)				7	9	4.56
The Adventures of Froggy and Dodo				1	15	4.94
Safe or Not Safe?		1	3	3	9	4.25
*Find the Word**		4	1	4	6	3.80
Decode the Words and Messages		2	2	6	6	4.00
Come to the Head of the Class	1			7	8	4.31

*One teacher did not answer.

Do you believe the 2nd Grade portion of the Module will be an influence on the behavior (when the time comes) of the pupils who participated in it?

_____ Not a bit   __7__ Probably   __9__ Definitely Yes

Second grade teachers wrote many comments directly on the Module, considerable of which were editorial or rhetorical. However, the majority of comments related to the test batteries and these have been considered in Section II of this Appendix.

Once again, some teachers said that some of the vocabulary of the Second Grade Module was unfamiliar to their pupils. In such cases, the authors placed brief definitions or descriptive phrases in parentheses immediately following the identified words. Also, the teachers indicated that more time was needed to conduct the lessons effectively, and the time for each of the five lessons was increased from 20 to 30 minutes.

A few of the teachers felt that *Come to the Head of the Class* was a bit too competitive, and the authors modified the description to suggest ways to handle this possibility.

Formal evaluations by pupils began at grade four, and none were sought from second graders.

Test Battery Results

The test battery for second grade was made up of two booklets. Booklet I consisted of 20 items. Booklet II consisted of 10 items. Analysis of Covariance (Table XXI) for the total score on both booklets for the complete sample showed that the experimental group scored significantly higher than the control group ($p < .001$).

TABLE XXI

ANALYSIS OF COVARIANCE OF SCORES FOR TOTAL BOOKLETS
EXPERIMENTAL VS. CONTROL GROUPS, GRADE 2

Source	DF	Mean Square	F
Treatment	1	368.16536	34.03*
Covariate	1	5874.71097	542.99
Error	688	10.81919	--

*$p < .001$

Further, on total booklets, four states showed significant results in favor of the experimental group (New York at $p < .001$, Minnesota at .01, Ohio and Vertmont at .05); three states showed non-significant results (California, Maine, New Jersey); and Nebraska provided no data.

Table XXII shows an experimental group adjusted mean gain of 2.71 compared with 1.01 for the control group. The experimental group gain is about three-fifths of a standard deviation, a moderate amount.

TABLE XXII

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON TOTAL BOOKLETS FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 2

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	340	21.13	4.46	23.75	4.62	23.84
Con	351	21.37	4.46	22.46	4.17	22.38

At second grade, the Module had four objectives. Specific Objective 1, "Pupils will be able to identify the effects of alcohol on judgment," was measured by five items in Booklet I. Analysis of covariance (Table XXIII) based on these items showed that the experimental group scored significantly higher than the control group ($p < .01$).

TABLE XXIII

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 1 EXPERIMENTAL VS. CONTROL GROUPS, GRADE 2

Source	DF	Mean Square	F
Treatment	1	6.17468	8.97*
Covariate	1	117.34575	170.56
Error	688	0.68801	--

*p < .01

The posttest adjusted mean gain (Table XXIV) was 0.47 for the experimental group (about one half of the standard deviation) compared with 0.07 for the control group. This objective ranked number 16 of 24 objectives in Table XII, page 240.

TABLE XXIV

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 1 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 2

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	340	4.03	1.08	4.46	0.89	4.50
Con	351	4.24	1.02	4.35	0.96	4.31

Specific Objective 2, "Pupils will be able to identify the effects of alcohol on the performance of physical tasks and activities," was measured by five items in Booklet I. Analysis of covariance (Table XXV) based on these items yielded no significant differences between experimental and control groups. Further, there were very small differences between posttest adjusted mean gains (Table XXVI) for experimental and control samples.

TABLE XXV

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 2 EXPERIMENTAL VS. CONTROL GROUPS, GRADE 2

Source	DF	Mean Square	F
Treatment	1	0.06790	0.06*
Covariate	1	167.32903	150.19
Error	688	1.11411	--

*NS

TABLE XXVI

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 2 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 2

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	340	3.80	1.18	4.09	1.20	4.12
Con	351	3.93	1.14	4.13	1.13	4.10

Specific Objective 3, "Pupils will be able to identify the effects of alcohol on vision," was measured by five items in Booklet I. Analysis of covariance (Table XXVII) based on these items revealed the experimental group scoring significantly higher than the control group ($p < .05$).

TABLE XXVII

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 3 EXPERIMENTAL VS. CONTROL GROUPS, GRADE 2

Source	DF	Mean Square	F
Treatment	1	3.96488	5.07*
Covariate	1	160.11768	204.76
Error	688	0.78197	--

*p < .05

However, the posttest adjusted mean gain (Table XXVIII) for the experimental group is relatively small. This objective is ranked number 17 of 25 in Table XII, page 240.

TABLE XXVIII

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 3, FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 2

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	340	4.08	1.14	4.32	1.02	4.36
Con	351	4.25	1.01	4.24	1.00	4.20

The authors are inclined to speculate that Objectives 1, 2, and 3 may not have been adequately measured by the five test battery items allotted to each, and on which control and experimental groups scored close to or above four on the pretests.

Specific Objective 4, "Pupils will be able to identify the risk situations in which drinking is not safe," was measured by five items in Booklet I and 10 items in Booklet II. Analysis of covariance (Table XXIX) based on these items found the experimental group scoring significantly higher than the control group ($p < .001$).

TABLE XXIX

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 4
EXPERIMENTAL VS. CONTROL GROUPS, GRADE 2

Source	DF	Mean Square	F
Treatment	1	164.43467	29.63*
Covariate	1	2666.83598	480.56
Error	688	5.54949	--

*$p < .001$

Table XXX shows an experimental group adjusted mean gain of 1.58 compared with 0.87 for the control group. The experimental group gain is approximately one half of the standard deviation, which is modest in size. This objective ranked number 10 of 24 in Table XII, page 240.

TABLE XXX

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 4 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 2

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	340	9.22	3.11	10.89	3.09	10.80
Con	351	8.95	2.99	9.74	3.05	9.82

Summary

Evaluation by teachers and *pre/post* test battery results yielded the following changes in the Second Grade Module:

1. Time for each of the five lessons was increased from 20 to 30 minutes.
2. Words unfamiliar to pupils were described or defined in parentheses immediately after the word.
3. *Come to the Head of the Class* was modified in description to minimize possible undesirable competitive aspects.

Analysis of covariance for total scores on the two test booklets for second grade showed the experimental group scoring significantly higher than the control group ($p < .001$). However, the adjusted mean gains for the experimental group were of modest size. This is explained in part by the fact that while analysis of covariance was significantly in favor of the experimental group on three of the four specific objectives for second grade ($p < .01$ for Objective 1, .01 for Objective 3, and .001 for Objective 4, NS for Objective 2), the adjusted mean gains for the experimental group were modest or small in size.

There is at least mild contradiction between modest support for the Second Grade Module through the results of *pre/post* test batteries and very strong support from teacher evaluations. The means on the teacher evaluation scales were uniformly high. An illustration of this is 15 teachers (the total N) rating overall value of the Module all gave the Module a five on a scale of one to five, with five at the positive end. When asked if the Module would be an influence on the behavior (when the time came) of the pupils who participated in it, seven of 16 teachers said "probably" and the remaining nine said "definitely yes."

After careful scrutiny of the four specific objectives of the Module and the activities and content presented to achieve them, the authors feel that the explanation for the above described contradiction may lie in the test batteries. Specific Objectives 1, 2, and 3 each have only five items (and a total possible high score of five) to measure them, and both experimental and control samples scored close to or above four on the pretests for these objectives. More items to measure these objectives would probably provide a better basis for evaluation of the Module and its objectives through test batteries.

THIRD GRADE

Teacher Evaluations

Overall K-6 Module

All (18) third grade teachers found that the Introduction gave them sufficient indication of the "whys" and "hows" of the Module, with one of them stating that it was too wordy. They all found the description of Organization by Grade Level to be clear.

Fourteen teachers said Appendix A was helpful and none wanted or suggested additional references. All teachers found Appendix B valuable and none suggested additions or deletions.

Third Grade Module

Fifteen teachers said the *pre/post* test batteries were satisfactory for measuring the effectiveness of the Module. One felt an oral discussion or examination would be a better way to evaluate what had been learned. All teachers found the Objectives practical and valuable, the Content clear and accurate, the Teaching Techniques helpful and clear, and the Materials Needed List helpful.

The following answers were provided by the total of 18 (except as otherwise stated) third grade teachers at the field-testing sites.

How would you characterize the pupils' reactions to the Module on the following scale of 1-5? (One teacher did not respond to any of these items, leaving N = 17.)

	1	2	3	4	5		Mean
Very bored				6	11	Very interested	4.65
Disliked teaching techniques				5	12	Liked teaching techniques	4.71
Participated less than usual				8	9	Participated more than usual	4.53
Disliked more than most other units or modules			4	7	6	Liked more than most other units or modules	4.12

Rate the lessons on the following scale of 1-5 in terms of their importance to you and your pupils. (One teacher did not respond to any of these items, leaving N = 17.)

	Not Important				Very Important	
	1	2	3	4	5	Mean
Lesson I			2	4	11	4.53
Lesson II		2	1	8	6	4.06
Lesson III			3	5	9	4.35
Lesson IV			4	7	6	4.12
Lesson V		1	3	4	9	4.24

	How much time* did you spend on each lesson?	How much time* do you think is necessary to present the lesson effectively?
Lesson I	30 minutes	31 minutes
Lesson II	28 minutes	32 minutes
Lesson III	26 minutes	29 minutes
Lesson IV	28 minutes	31 minutes
Lesson V	40 minutes	31 minutes

*Reported by mean for all states combined.

Please indicate on the following scale of 1-5 how you feel about the Module in terms of the items listed.

	Negative		Neutral		Positive	
	1	2	3	4	5	Mean
Overall value				2	16	4.89
Relevance of objectives*				3	14	4.82
Accuracy of information in content				3	15	4.83
Value of teaching techniques	1		1	7	9	4.28
Suitability for your pupils			1	8	9	4.44

*One teacher did not respond.

How closely did you follow the teaching techniques included in the Module?

6 Completely.
12 Most of the time.
_____ Some of the time.
_____ Not at all.

Rate the teaching techniques on the following scale of 1-5, in terms of serving the objective(s) and/or purpose(s) of the related items.

	Useless				Very Valuable	
	1	2	3	4	5	Mean
Land of Pans	1			4	13	4.56
Rebus Puzzle	1		1	7	9	4.28
Decode the Words		3	2	4	9	4.06
"I Learned"	1	1	1	5	10	4.22
*Mini-Lecture and Demonstration**			2	6	9	4.41
Match-Up			2	4	12	4.56
*Script Writing and Puppetry**	1		4	4	8	4.06

*One teacher did not answer.

Do you believe the 3rd Grade portion of the Module will be an influence on the behavior (when the time comes) of the pupils who participated in it?

_____ Not a bit   13 Probably   5 Definitely Yes

Third grade teachers commented liberally on all aspects of the Module, with one recommending that all lessons should be simplified and shortened, and another that there were too many negative illustrations in the Module and that more positive illustrations should be substituted for these. Where identified and possible, the authors did what they could about such comments. However, most of the teachers' comments related to the test booklets and these have been considered in Section II of this Appendix.

A few of the teachers identified specific words unfamiliar to their pupils. The authors either substituted or placed brief definitions in parentheses immediately after those words causing difficulties. As with the lower grades, the teachers said that more time was needed to present the lessons effectively, and time for each lesson was increased from 20 to 30 minutes.

The burden of carrying game boards between teacher training sites and the awkwardness of the boards used in field-testing prompted the authors to modify the description and procedures. For gaming activities such as *Match-Up*, the game board is now drawn directly on the chalkboard and fastening material is used to hold the cards properly.

In response to evaluations from teachers, "processing out" details were added for Lesson II, using concepts and information from *Land of Pans* to review the *Rebus Puzzle*. Further descriptive details were added to *Match-Up* to make clear that a second round can be played with the remaining eight words and their duplicate cards.

Formal evaluations were not sought from third grade pupils. However, in several schools, groups of third graders expressed what they learned by drawings accompanied by messages--from a caption to a poem or slogan.

The main themes of these pupil products related to the hazards of driving after drinking, like running into things and being killed. They also conveyed a good grasp of the relative potency of beer, the fact that whiskey is a drug and that "it makes your brain sleepy."

Test Battery Results

The test battery for third grade consisted of two booklets. Booklet I contained 20 items, Booklet II had 10. Analysis of covariance (Table XXXI) for the total score on both booklets for the complete sample showed that the experimental group scored significantly higher than the control group ($p < .001$).

TABLE XXXI

ANALYSIS OF COVARIANCE OF SCORES FOR TOTAL BOOKLETS
EXPERIMENTAL VS. CONTROL GROUPS, GRADE 3

Source	DF	Mean Square	F
Treatment	1	532.83763	53.40*
Covariate	1	3058.59966	306.55
Error	881	9.97734	--

*$p < .001$

On total booklets, five states had the experimental group scoring significantly higher than the control group (California at $p < .001$, Maine and Nebraska at .01, New York at .001, Vermont at .05); three states did not show significant differences (Minnesota, New Jersey, Ohio).

Table XXXII shows an experimental group adjusted mean gain of 1.83 (about half a standard deviation and of modest strength) compared with 0.09 for the control group.

TABLE XXXII

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON TOTAL BOOKLETS FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 3

		Pretest		Posttest		Posttest (Adj.)
Control	N	Mean	SD	Mean	SD	Mean
Exp	462	21.74	3.26	23.52	3.90	23.57
Con	422	21.92	3.22	22.06	3.39	22.01

At third grade, the Module had three objectives. Specific Objective 1, "Pupils will display knowledge of the influence of alcohol on risk taking behavior," was measured by items one through five of Booklet I and items one through five of Booklet II. Analysis of covariance (Table XXXIII) based on these items showed that the experimental group scored significantly higher than the control group ($p < .001$).

TABLE XXXIII

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 1 EXPERIMENTAL VS. CONTROL GROUPS, GRADE 3

Source	DF	Mean Square	F
Treatment	1	49.87845	26.67*
Covariate	1	281.78293	150.68
Error	881	1.87013	--

*p < .001

The posttest adjusted mean gain (Table XXXIV) was 0.77 for the experimental group (about half the standard deviation). compared with 0.03 for the control group. In Table XII (page 240), this objective ranked 11th in a field of 24.

TABLE XXXIV

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 1 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 3

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	462	7.22	1.41	7.78	1.51	7.79
Con	422	7.29	1.36	7.33	1.45	7.32

Specific Objective 2, "Pupils will be able to identify the relationships between traffic accidents and alcohol consumption," was measured by items 6-15 of Booklet I. Analysis of covariance (Table XXXV) based on these items resulted in a significant difference in favor of the experimental group ($p < .001$).

TABLE XXXV

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 2
EXPERIMENTAL VS. CONTROL GROUPS, GRADE 3

Source	DF	Mean Square	F
Treatment	1	103.25255	43.65*
Covariate	1	400.64254	169.37
Error	881	2.36544	--

*$p < .001$

The posttest adjusted mean gain (Table XXXVI) was 0.85 for the experimental group (one half the standard deviation) compared with -0.03 for the control. This objective ranked seventh of 24 in Table XII, page 240.

TABLE XXXVI

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 2 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 3

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	462	7.09	1.68	7.90	1.70	7.94
Con	422	7.28	1.53	7.30	1.66	7.25

Specific Objective 3, "Pupils will be able to identify the influence of alcohol on coordination," was measured by items 16-20 of Booklet I and items 6-10 of Booklet II. Analysis of covariance (Table XXXVII) based on these items revealed that the experimental group scored significantly higher than the control group (p < .001).

TABLE XXXVII

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 3 EXPERIMENTAL VS. CONTROL GROUPS, GRADE 3

Source	DF	Mean Square	F
Treatment	1	29.56177	14.14*
Covariate	1	335.63308	160.57
Error	881	2.09025	--

*p < .001

The posttest adjusted mean gain (Table XXXVIII) was 0.39 for the experimental group (about one fourth the standard deviation) compared with 0.11 for the control group. While significant, the magnitude of change is quite small. This objective ranked 13th of 24 on Table XII.

TABLE XXXVIII

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 3 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 3

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	462	7.43	1.47	7.84	1.66	7.82
Con	422	7.34	1.55	7.43	1.47	7.45

Summary

Evaluations by teachers and *pre/post* test battery results yielded the following changes in the Third Grade Module:

1. Time for each of the five lessons was increased from 20 to 30 minutes.
2. Words unfamiliar to pupils were described or defined in parentheses immediately after the word.
3. Game boards were modified to facilitate classroom use.
4. "Processing out" details were added for Lesson II (relatively judged the weakest but nevertheless highly rated), using concepts and information from *Land of Pans* to review the *Rebus Puzzle*.
5. Further descriptive details were included for *Match-Up*.
6. Through drawings with captions or messages, pupils demonstrated

their grasp of the hazards of drinking and driving and their good understanding of the nature of alcohol and its effects on the body and mind.

Analysis of covariance for total scores on the two test booklets for third grade showed results significantly in favor of the experimental group ($p < .001$). The same was true for all three specific objectives. Combining these results with the very high teacher ratings for overall value (mean of 4.89) and practicality suggests that the Third Grade Module is ready to achieve its objectives.

FOURTH GRADE

Teacher Evaluations

Overall K-6 Module

Teachers (18) unanimously said that the Introduction adequately provided a rationale for the Module and all stated that the description of the Organization by Grade Level was clear.

All teachers found Appendix A helpful and none requested or suggested additional references. Fifteen teachers found Appendix B valuable and three did not. However, no teacher suggested additions or deletions.

Fourth Grade Module

Eleven teachers felt the *pre/post* test batteries could be used satisfactorily to measure the effectiveness of the Module. The remainder did not answer this question, and no one suggested a better way. It seems the burden of suggesting a better method, if they thought the tests inadequate, discouraged some from answering at all.

All teachers found the Objectives practical and valuable, overview of Content clear and accurate, description of Teaching Techniques helpful and clear, and the list of Materials Needed helpful.

The following answers were provided by the total of 18 (except as otherwise indicated) fourth grade teachers at the field-testing sites.

How would you characterize the pupils' reactions to the Module on the following scale of 1-5? (One teacher did not respond to any of these items, thus N = 17.)

	1	2	3	4	5		Mean
Very bored			1	6	10	Very interested	4.53
Disliked teaching techniques			3	8	6	Liked teaching techniques	4.18
Participated less than usual		1	4	4	8	Participated more than usual	4.12
Disliked more than most other units or modules*			3	7	6	Liked more than most other units or modules	4.19

*Two teachers did not answer this item.

Rate the lessons on the following scale of 1-5 in terms of their importance to you and your pupils.

	Not Important				Very Important	
	1	2	3	4	5	Mean
Lesson I	1	1	4	3	9	4.00
Lesson II		1	4	5	8	4.11
Lesson III			7	5	6	3.94
Lesson IV		1	6	5	6	3.89
Lesson V	1		4	5	8	4.06

	How much time* did you spend on each lesson?	How much time* do you think is necessary to present the lesson effectively?
Lesson I	45 minutes	47 minutes
Lesson II	43 minutes	75 minutes
Lesson III	42 minutes	48 minutes
Lesson IV	41 minutes	47 minutes
Lesson V	37 minutes	42 minutes

*Reported by mean for all states combined.

Please indicate on the following scale of 1-5 how you feel about the Module in terms of the items listed.

	Negative		Neutral		Positive	
	1	2	3	4	5	Mean
Overall value			2	5	11	4.50
Relevance of objectives			1	6	11	4.56
Accuracy of information in content*			1	3	13	4.71
Value of teaching techniques			3	5	10	4.39
Suitability for your pupils		1	5	3	9	4.11

*One teacher did not respond

How closely did you follow the teaching techniques included in the Module?

8 Completely.
10 Most of the time.
_____ Some of the time.
_____ Not at all.

Rate the teaching techniques on the following scale of 1-5, in terms of serving the objective(s) and/or purpose(s) of the related lesson.

	Useless				Very Valuable	
	1	2	3	4	5	Mean
Almost Every Does			3	6	9	4.33
Poetry Building	1	5	4	5	3	3.22
Batter-Up/Alcoball			2	4	12	4.56
Free to Be		2	5		11	4.11
Pupils' Lap Book		2	4	4	8	4.00
*Charades**		4	2	5	6	3.76
*Slogans on Your CB***		3	5	6	1	3.33
Values Voting		1	3	3	11	4.33

*One teacher did not answer.

**Three teachers did not answer.

Do you believe the 4th Grade portion of the Module will be an influence on the behavior (when the time comes) of the pupils who participated in it?

_____ Not a bit   14 Probably   4 Definitely Yes

It should be noted that one teacher indicated real doubts about "this type of content at this age level" and gave low ratings to most aspects of the Module. Other comments were fairly evenly divided between test batteries and the Module itself. Those relating to test batteries have been considered in Section II of this Appendix.

As indicated on the scale above *Poetry Building* did not rate highly. It was subsequently dropped from the Module and *Batter-Up/Alcoball* (the most highly rated technique) was expanded to cover some of the areas *Poetry Building* originally was designed to cover. Further, numerous discussion questions were added to the description for "processing out" the film *Almost Everyone Does*, and these modifications also substituted for what may have been lost to the Module's objectives by the elimination of *Poetry Building*.

Many teachers commented that the Module was far too long for the time allotted, especially with regard to Lesson II, where the mean time the teachers said it would take to teach the lesson effectively was 75 minutes as opposed to the 40 minutes allocated. One factor in this was the enthusiastic pupil response to *Batter-Up/Alcoball*. They did not wish to stop playing. As a partial remedy for this situation it was suggested that the teacher might introduce the rules for *Batter-Up/Alcoball* at the end of Lesson I (time permitting), so that more time would be available for playing the game during Lesson II. Also it might be said at the end of Lesson II that the game can be played again, if time permits, in a later lesson.

Some teachers raised questions about the film strip, *Free to Be*. More description was added to help them understand its purpose and to facilitate effective presentation.

At this grade also, some teachers found some vocabulary unfamiliar to their pupils. The authors either substituted for or placed brief definitions in parentheses immediately after the words causing difficulties.

The authors responded to some teachers' comments about *Charades* by providing more details for presentation and "processing out" of the activity. The same was true for *Slogans on Your CB* and *Values Voting*.

Pupil Evaluations

Pupils in grades 4-6 were asked to evaluate the portion of the Module presented to their respective grades. The Pupil's Evaluation Form (pages 214-215) had three questions. Question 1 (items 1-5) and question 2 (items 1-6) were similar for grades 4-6. Question 3 was specific by grade level, relating to the activities presented at that grade.

Table XXXIX reflects the feelings of the fourth grade pupils regarding their experience in the Module and profit from it. It shows a high positive response to most items. The lowest mean score was earned by item 2, "I did more in class than I usually do." This score may suggest that fourth graders usually have a reasonable number of classroom activities, regardless of the subject matter being taught.

TABLE XXXIX

GRADE 4 PUPILS' RESPONSES TO QUESTION ONE (ITEMS 1-5) OF THE PUPIL'S EVALUATION FORM BY MEAN ($\overline{X}$)* AND TOTAL PERCENTAGE** FOR ALL STATES COMBINED

(N=397)

Item:	Omitted:	% Strongly Agree 5	Agree 4	In the Middle 3	Disagree 2	Strongly Disagree 1
1. I enjoyed being in class and had fun learning. ($\overline{x}$=4.28)	0.3	51.6	31.7	11.6	2.5	2.3
2. I did more in class than I usually do. ($\overline{x}$=3.47)	0.3	24.4	26.4	30.2	8.8	9.8
3. I learned about alcohol and traffic safety. ($\overline{x}$=4.26)	0.5	50.1	32.5	11.3	3.3	2.3
4. I liked the games we played. ($\overline{x}$=4.50)	0.3	69.0	16.9	10.3	1.5	2.0
5. I learned things that will do me some good. ($\overline{x}$=4.42)	0.5	60.2	27.0	7.8	2.8	1.8

*Excluding omits.
**Rounded off

Table XL synthesizes and summarizes the wide variety of responses made by pupils to question 2, items 1-6, of the Pupil's Evaluation Form.

TABLE XL

GRADE 4 PUPILS' RESPONSES TO OPEN-ENDED QUESTION TWO (ITEMS 1-6) OF THE PUPIL'S EVALUATION FORM BY CATEGORY AND PERCENT FOR ALL STATES COMBINED

Item	Response Categories	Response %*
1. I liked this alcohol program because: (258 responses)	I learned a lot	36.4
	it was fun	29.5
	I know about drinking now	8.5
	it's helpful	7.8
	now I won't drink	3.5
	it's interesting	3.5
	it taught me what to/ what not to do	2.3
	miscellaneous	8.7
2. My favorite thing was: (325 responses)	Batter-Up/Alcoball	33.5
	games	15.7
	films	15.7
	Charades	9.5
	drawing pictures	5.5
	Lap Book	4.9
	CB slogans	4.3
	poems	2.2
	miscellaneous	8.4
3. I didn't like: (188 responses)	tests	20.7
	films	11.7
	poems	10.1
	there was nothing I didn't like	10.1
	Black Magic	9.6
	everything	9.0
	Batter-Up/Alcoball	5.3
	CB slogans	4.8
	Values Voting	3.2
	Charades	3.2
	"Free to Be"	2.1
	Lap Book	2.1
	miscellaneous	8.1
4. I wish we did more of: (316 responses)	Batter-Up/Alcoball	24.4
	games	23.7
	everything	15.8
	Charades	11.7
	films	11.4
	Lap Book	3.5
	miscellaneous	9.4

TABLE XL (continued)

Item	Response Categories	Response %*
5. The three most important things I learned were: (684 responses)	not to drink and drive	31.3
	don't drink	15.9
	don't smoke	15.2
	don't mix drugs and alcohol	6.1
	how alcohol affects the body and health	5.1
	don't be influenced by friends	5.0
	don't drink too much	4.8
	alcohol is dangerous	4.0
	traffic safety	3.1
	miscellaneous**	9.8
6. I think it's important to learn about alcohol because: (266 responses)	you'll know what to do in the future	22.2
	you'll know about its dangers	20.3
	then you won't drink	12.4
	alcohol causes problems	8.3
	then you won't drink too much	7.9
	it's safer with the knowledge	7.1
	it helps in decision-making	4.9
	it's important	2.6
	it can save your life	3.4
	you can have an accident if you don't know about it	1.9
	miscellaneous	9.1

*Rounded off.
**These included:

don't drink if you don't want to; you can do things other than drink to have a good time; you can have fun at a party without alcohol; don't sniff glue; the reasons why people drink; don't tease someone who doesn't drink; how to help a problem drinker; not to make fast decisions; don't drive with drunk friends; don't walk in traffic after drinking; smoking can cause cancer; don't drink to cope; don't drink on an empty stomach.

Table XLI presents pupils' ratings of the activities presented during the Module. *Batter-Up/Alcoball* was the clear "winner" and *Poetry Building* the "loser." This was the same pattern expressed by teachers.

TABLE XLI

GRADE 4 PUPILS' RESPONSES TO QUESTION THREE (ITEMS 1-8) OF THE PUPIL'S EVALUATION FORM BY MEAN ($\bar{X}$)* AND TOTAL PERCENTAGE** FOR ALL STATES COMBINED

(N=397)

Item	Omitted	% Excellent 5	Good 4	Average 3	Fair 2	Poor 1
1. Film - *"Almost Everyone Does"* ($\bar{x}$=3.78)	3.0	37.0	27.8	14.9	8.4	8.9
2. *Poetry Building* ($\bar{x}$=3.42)	2.0	28.7	25.7	16.1	13.4	14.1
3. *Batter-Up/Alcoball* ($\bar{x}$=4.59)	1.5	74.9	12.9	6.1	2.8	1.8
4. Filmstrip - *"Free to Be"* ($\bar{x}$=3.92)	1.0	47.1	23.0	10.9	9.6	8.4
5. *Lap Book* ($\bar{x}$=4.06)	1.3	45.8	29.4	11.4	7.8	4.3
6. *Charades* ($\bar{x}$=4.20)	7.6	53.1	20.2	8.1	6.5	4.5
7. *Slogans on your CB* ($\bar{x}$=3.80)	14.0	35.0	22.8	10.7	11.2	6.3
8. *Values Voting* ($\bar{x}$=3.97)	1.8	42.4	28.9	14.0	7.4	5.6

*Excluding omits.
**Rounded off.

The pupils were overwhelmingly positive about the Module. Tables XXXIX and XL say that from their point of view the pupils learned a lot about alcohol and traffic safety and had fun doing it. Further, of the three most important things they learned, not to drink and drive (when the time comes) was clearly at the top.

Test Battery Results

The test battery for fourth grade consisted of two booklets. Booklet I contained 40 items, Booklet II seven items. Analysis of covariance (Table XLII) for the total score on both booklets for the complete sample found the experimental group scoring significantly higher than the control group ($p < .01$).

TABLE XLII

ANALYSIS OF COVARIANCE OF SCORES FOR TOTAL BOOKLETS
EXPERIMENTAL VS. CONTROL GROUPS, GRADE 4

Source	DF	Mean Square	F
Treatment	1	157.89135	9.48*
Covariate	1	11272.27843	676.52
Error	820	16.66204	--

*$p < .01$

However, on total booklets, only two states, California and Maine showed significant results ($p < .001$ and $.01$, respectively). Table XLIII shows an experimental group adjusted mean gain of 1.43 (less than one third of the standard deviation) compared with 0.75 for the control group. One reason for the modest size of the mean gain is revealed in analysis of covariance for Specific Objectives 2, 3, and 4. They all showed non-significant results, though 4 was close at $p < .10$.

TABLE XLIII

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON TOTAL BOOKLETS FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 4

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	450	32.70	5.44	34.20	5.58	34.13
Con	373	32.50	4.90	33.17	5.43	33.25

At fourth grade, the Module had four objectives. Specific Objective 1, "Pupils will be able to identify the influence of peers on drinking behavior," was measured by ten items of Booklet I and the seven items of Booklet II. Analysis of covariance (Table XLIV) based on these items found the experimental group scoring significantly higher than the control group ($p < .001$).

TABLE XLIV

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 1 EXPERIMENTAL VS. CONTROL GROUPS, GRADE 4

Source	DF	Mean Square	F
Treatment	1	66.89955	16.01*
Covariate	1	1388.95699	322.47
Error	820	4.17765	--

*$p < .001$

The posttest adjusted mean gain (Table XLV) was 0.74 for the experimental group (about one quarter of a standard deviation), compared with 0.48 for the control group. On Table XII (page 240), this objective ranked 14th in a field of 24.

TABLE XLV

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND
ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 1 FOR
EXPERIMENTAL AND CONTROL GROUPS, GRADE 4

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	450	10.47	2.31	11.29	2.43	11.21
Con	373	10.16	2.42	10.54	2.41	10.64

Specific Objective 2, "Pupils will be able to identify the influence of adult role models on drinking behavior," was measured by 10 items in Booklet I. Analysis of covariance (Table XLVI) based on these items yielded non-significant results.

TABLE XLVI

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 2
EXPERIMENTAL VS. CONTROL GROUPS, GRADE 4

Source	DF	Mean Square	F
Treatment	1	3.75691	1.89*
Covariate	1	420.00637	211.28
Error	820	1.98788	--

*NS

The posttest adjusted mean gain (Table XLVII) was 0.19 for the experimental group and -0.07 for the control. This objective ranks 20th of 24 in Table XII, page 240.

TABLE XLVII

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 2 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 4

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	450	7.56	1.68	7.73	1.54	7.75
Con	375	7.69	1.52	7.65	1.63	7.62

Specific Objective 3, "Pupils will be able to identify ways of achieving personal satisfaction without drinking," was measured by 10 items of Booklet I. Analysis of covariance (Table XLVIII) based on these items yielded non-significant results.

TABLE XLVIII

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 3 EXPERIMENTAL VS. CONTROL GROUPS, GRADE 4

Source	DF	Mean Square	F
Treatment	1	0.34816	0.20*
Covariate	1	346.03282	200.04
Error	820	1.72985	--

*NS

The posttest adjusted mean gain (Table XLIX) was 0.18 for the experimental group, 0.16 for the control. This objective ranked 24th of 24 in Table XII, page 240.

TABLE XLIX

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 3 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 4

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	450	6.64	1.55	6.81	1.47	6.82
Con	373	6.70	1.46	6.88	1.46	6.86

Specific Objective 4, "Pupils will be able to identify appropriate or inappropriate actions that show respect, or lack of it, for a person's decision not to drink," was measured by 10 items of Booklet I. Analysis of covariance (Table L) based on these items showed nonsignificant results. However, this objective came close to significance ($p < .10$).

TABLE L

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 4 EXPERIMENTAL VS. CONTROL GROUPS, GRADE 4

Source	DF	Mean Square	F
Treatment	1	10.61049	3.41*
Covariate	1	683.78124	219.45
Error	820	3.11595	--

*NS

The posttest adjusted mean gain (Table LI) was 0.31 for the experimental group, and 0.19 for the control. This objective ranked 18th of 24 in Table XII.

TABLE LI

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, FOR ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 4 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 4

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	450	8.04	1.95	8.38	1.96	8.35
Con	373	7.94	1.76	8.10	2.02	8.13

Summary

Evaluations by teachers, pupils and *pre/post* test battery results yielded the following changes in the Fourth Grade Module:

1. Time for each of the five lessons was increased from 40 to 45 minutes.
2. Words unfamiliar to pupils were described or defined in parentheses immediately after the word.
3. *Poetry Building* was dropped from the Module.
4. *Batter-Up/Alcoball* was expanded to include additional materials relevant for objectives.
5. Description and discussion were expanded for the film *Almost Everyone Does* in the interest of increased attention to objectives.
6. *Free to Be* was described in more detail geared to Specific Objective 3.

7. More details were provided for the presentation and "processing out" of *Charades, Slogans on Your CB* and *Values Voting,* all with an eye toward greater impact on objectives.

While analysis of covariance for total scores on the two test booklets for fourth grade was significantly in favor of the experimental group ($p < .01$), it was somewhat disappointing that for three of the four specific objectives there was nonsignificant results, even though Specific Objective 4 came close ($p < .10$).

The high ratings by teachers (mean of 4.50 on a scale of one to five for overall value) and pupils (mean of 4.42 on five-point scale) for "I learned things that will do me some good," along with other highly supportive ratings, suggest an inherently good module with specific areas in need of improvement.

For techniques, the generally high ratings were interspersed with a few relatively lower ratings, with basic agreement between teachers and pupils on these selections, and this agreement in turn pointed out areas in need of change.

With the modifications described above now in place the Fourth Grade Module should do better in terms of achieving its objectives.

FIFTH GRADE

Teacher Evaluations

Overall K-6 Module

All fifth grade teachers (21) said the Introduction gave them sufficient indication of the "whys" and "hows" of the Module. One teacher suggested a vocabulary list (of unfamiliar words) as part of the Introduction. All teachers found the description of Organization by Grade Level to be clear.

Seventeen teachers felt that the references in Appendix A were helpful and none requested additional references. Sixteen teachers found Appendix B valuable, two said it was not valuable and none suggested any changes to improve its usefulness.

Fifth Grade Module

The 16 teachers who answered the question said the *pre/post* test batteries were satisfactory for measuring the effectiveness of the Module; no one had suggestions for a better measure.

All teachers found the Objectives practical and valuable, overview of Content clear and accurate, description of Teaching Techniques helpful and clear, and the list of Materials Needed helpful.

The following answers were provided by the total of 21 (except as otherwise indicated) fifth grade teachers at the field-testing sites.

How would you characterize the pupils' reactions to the Module on the following scale of 1-5? (One teacher did not respond to any of these items, thus N = 20.)

	1	2	3	4	5		Mean
Very bored			1	5	14	Very interested	4.65
Disliked teaching techniques				6	14	Liked teaching techniques	4.70
Participated less than usual			1	12	7	Participated more than usual	4.30
Disliked more than most other units or modules*			3	5	10	Liked more than most other units or modules	4.39

*Three teachers did not answer this item.

Rate the lessons on the following scale of 1-5 in terms of their importance to you and your pupils. (One teacher did not answer any of these items, thus N = 20.)

	Not Important				Very Important	
	1	2	3	4	5	Mean
Lesson I				1	19	4.95
Lesson II				6	14	4.70
Lesson III		1	4	6	9	4.15
Lesson IV		1	2	7	10	4.30
Lesson V			1	2	17	4.80

	How much time* did you spend on each lesson?	How much time* do you think is necessary to present the lesson effectively?
Lesson I	48 minutes	51 minutes
Lesson II	43 minutes	43 minutes
Lesson III	49 minutes	49 minutes
Lesson IV	43 minutes	41 minutes
Lesson V	42 minutes	43 minutes

*Reported by mean for all states combined.

Please indicate on the following scale of 1-5 how you feel about the Module in terms of the items listed.

	Negative		Neutral	Positive		
	1	2	3	4	5	Mean
Overall value				1	20	4.95
Relevance of objectives			1	2	18	4.81
Accuracy of information in content				1	20	4.95
Value of teaching techniques			1	4	16	4.71
Suitability for your pupils				5	16	4.76

How closely did you follow the teaching techniques included in the Module?

11 Completely.

10 Most of the time.

_____ Some of the time.

_____ Not at all.

Rate the teaching techniques on the following scale of 1-5, in terms of serving the objective(s) and/or purpose(s) of the related lesson.

	Useless 1	2	3	4	Very Valuable 5	Mean
Alcohol: How Much Is Too Much?					21	5.00
Jeopardy				1	20	4.95
Jungle Jamboree			1	5	15	4.67
*Black Magic****		1	3	8	9	4.19
*Risks Ratio**		1	1	7	11	4.40
"Rights" and "Responsibilities" Buttons		2	4	7	8	4.00
*Role-Play**			4	4	12	4.40
Joey and Me			1	1	19	4.86
*Let's Have a Party***			1	2	14	4.76

***One teacher did not respond.**
****Four teachers did not respond.**
*****Changed to *Purple Mystery* in final version of Module.**

Do you believe the 5th Grade portion of the Module will be an influence on the behavior (when the time comes) of the pupils who participated in it?

2 Not a bit **9 Probably** **10 Definitely Yes**

One teacher suggested the addition of a film Soft is the Heart of a Child. While there were numerous editorial comments, most specific suggestions related to the test booklets and these have been considered in Section II of this Appendix.

One of the teachers commented that her class was made up of pupils at different reading levels and that this added to the difficulty of teaching the Module. This teacher was joined by several others who suggested a vocabulary list or a glossary as well as more time for the lessons of the Module. The authors dealt with the first suggestion by placing brief definitions or descriptive phrases in parentheses after words the teachers identified as unfamiliar or difficult. The second suggestion, along with the mean of times the teachers thought necessary to present the lessons effectively, led to an increase from 40 to 45 minutes in the time allotted for each of the five lessons.

Fifth grade teachers rated the Module highly. On five-point scales having values of 1 through five, with 1 representing the most negative rating and five the most positive, overall value of the Module received a mean rating of 4.95; relevance of objectives was rated 4.81, suitability for pupils, 4.76. Of the 21 teachers, nine responded "probably" and ten "definitely yes" to the question of whether they believe the Module would be an influence on the later behavior of pupils.

On similar scales, ratings of techniques ranged from 4.00 to a perfect rating of 5 for *Alcohol: How Much Is Too Much?*.

Pupil Evaluations

Table LII shows a positive response to the Module in general. The authors found this reassuring as fifth graders are known to be candid and somewhat cynical about praising what goes on in school.

TABLE LII

GRADE 5 PUPILS' RESPONSES TO QUESTION ONE (ITEMS 1-5) OF THE PUPIL'S EVALUATION FORM BY MEAN ($\overline{X}$)* AND TOTAL PERCENTAGE** FOR ALL STATES COMBINED

(N=521)

		%				
	Omitted	Strongly Agree 5	Agree 4	In The Middle 3	Disagree 2	Strongly Disagree 1
1. I enjoyed being in class and had fun learning. ($\overline{x}$=4.15)	0.0	41.9	37.3	16.7	1.9	2.1
2. I did more in class than I usually do. ($\overline{x}$=3.44)	1.0	19.6	29.9	30.3	13.1	6.1
3. I learned about alcohol and traffic safety. ($\overline{x}$=4.25)	0.4	50.5	31.9	11.5	3.3	2.5
4. I liked the games we played. ($\overline{x}$=4.34)	0.2	61.0	20.5	11.9	3.8	2.5
5. I learned things that will do me some good. ($\overline{x}$=4.50)	0.4	64.7	25.0	6.7	1.3	1.9

*Excluding omits.
**Rounded off.

Table LIII synthesizes and summarizes the responses of pupils to question 2, items 1-6, of the Pupil's Evaluation Form.

TABLE LIII

GRADE 5 PUPILS' RESPONSES TO OPEN-ENDED QUESTION TWO (ITEMS 1-6) OF THE PUPIL'S EVALUATION FORM BY CATEGORY AND PERCENT FOR ALL STATES COMBINED

Item	Response Categories	Response %*
1. I liked this alcohol program because: (470 responses)	I learned a lot about alcohol	52.8
	it was fun	24.7
	it was interesting	4.7
	it will help in decision-making	3.8
	now I won't drink when I grow up	2.7
	I enjoyed the films	2.6
	miscellaneous	8.4
2. My favorite thing was: (384 responses)	the games	33.1
	Jeopardy	20.8
	the movies	19.3
	Role-Play	6.0
	"Joey and Me"	5.2
	Jungle Jamboree	3.9
	drawing	2.3
	miscellaneous	9.3
3. I didn't like: (192 responses)	the tests	19.3
	Black Magic	19.3
	movies	13.0
	everything	12.5
	Risks Ratio	5.7
	Rights and Responsibilities	4.7
	Jungle Jamboree	3.6
	the party	3.6
	Jeopardy	3.7
	the drunk fish	3.0
	making buttons	2.1
	games	2.1
	miscellaneous	8.3
4. I wish we did more of: (350 responses)	Jeopardy	30.9
	movies	18.0
	games	16.6
	everything	14.3
	Jungle Jamboree	6.3
	Role-Play	5.1
	miscellaneous	8.9

TABLE LIII (continued)

Item	Response Categories	Response %*
5. The three most important things I learned were: (632 responses)	don't drink and drive	18.7
	don't drink	16.6
	the effects of alcohol	12.8
	how much is too much	12.7
	the dangers of alcohol	6.2
	don't smoke	5.4
	don't take drugs with alcohol	3.5
	learning to make decisions about drinking	3.2
	don't drink on an empty stomach	2.2
	respect others' decisions about drinking	2.1
	how to deal with peer pressure	2.1
	you can have fun without alcohol	1.7
	refuse a lift from drunk drivers	1.6
	how to refuse a drink	1.4
	miscellaneous	10.0
6. I think it's important to learn about alcohol because: (326 responses)	I'll know what to do when I grow up	24.5
	it's good to know how it affects you	17.5
	it's dangerous to drink	12.6
	it helps in decision-making	9.2
	now I won't drink	9.2
	it's important to know	6.7
	I know how to help others	5.2
	it tells you how much is too much	4.3
	it's bad for your health	3.4
	miscellaneous	7.3

*Rounded off.

Table LIV shows pupils' ratings of the activities presented during the Module. The variance in ratings shows clear pupil preferences.

TABLE LIV

GRADE 5 PUPILS' RESPONSES TO QUESTION THREE (ITEMS 1-9) OF THE PUPIL'S EVALUATION FORM BY MEAN ($\bar{X}$)* AND TOTAL PERCENTAGE** FOR ALL STATES COMBINED (N=521)

		%				
	Omitted	Excellent 5	Good 4	Average 3	Fair 2	Poor 1
1. Film - *Alcohol: How Much Is Too Much?* ($\bar{x}$=3.87)	2.3	32.2	38.4	13.6	9.4	4.0
2. Playing *Jeopardy* ($\bar{x}$=4.47)	1.3	66.2	20.9	5.6	4.0	1.9
3. *Jungle Jamboree* ($\bar{x}$=3.96)	2.5	39.7	30.7	15.4	6.9	4.8
4. *Black Magic*[1] ($\bar{x}$=3.43)	2.5	30.7	22.1	16.9	13.8	14.0
5. *Risks Ratio* ($\bar{x}$=3.52)	11.3	21.2	27.9	22.3	11.0	6.3
6. *"Rights and Responsibilities"* Buttons ($\bar{x}$=3.38)	12.3	20.7	25.7	18.6	11.1	11.5
7. *Role-Play* ($\bar{x}$=4.24)	9.0	52.2	20.9	8.4	6.1	3.3
8. Film - *Joey and Me* ($\bar{x}$=4.22)	3.3	58.3	17.9	9.6	5.4	5.6
9. *Let's Have a Party* ($\bar{x}$=4.00)	14.4	37.4	25.3	12.1	6.5	4.2

*Excluding omits.
**Rounded off.
[1] Changed to *Purple Mystery* in final version of Module.

Tables LII and LIII show that from their point of view pupils enjoyed the Module and learned a lot about alcohol and traffic safety as a result of it. Of the three most important things they learned, "don't drink and drive" was the most frequently mentioned with "don't drink" a close second. The preferences revealed in their ratings of techniques (Table LIV) and answers to open-ended questions provided the authors with input to consider in modifying the Module. Their high rating of and interest in *Jeopardy* led to a suggestion to teachers that the game could be played again in later lessons, if time permitted.

Test Battery Results

The test battery for fifth grade consisted of two booklets. Booklet I contained 22 items, Booklet II had 44. Analysis of covariance (Table LV) for the total score on both booklets for the entire sample found the experimental group scoring significantly higher than the control group ($p < .001$).

TABLE LV

ANALYSIS OF COVARIANCE OF SCORES FOR TOTAL BOOKLETS
EXPERIMENTAL VS. CONTROL GROUPS, GRADE 5

Source	DF	Mean Square	F
Treatment	1	5423.01577	180.97*
Covariate	1	17108.84980	570.95
Error	924	29.96561	--

*$p < .001$

On total booklets, all eight states showed significant results ($p < .001$). Table LVI reveals an experimental group adjusted mean gain of 6.21 (almost a full standard deviation) compared with 0.74 for the control group.

TABLE LVI

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON TOTAL BOOKLETS FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 5

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	535	38.66	6.65	44.71	7.09	44.87
Con	392	39.23	6.22	40.19	6.78	39.97

At fifth grade, the Module had three objectives. Specific Objective 1, "Pupils will be able to identify the general reaction of the body and mind to alcohol in combination with other drugs," was measured by nine items in Booklet I. Analysis of covariance (Table LVII) based on these items showed significant results in favor of the experimental group ($p < .001$).

TABLE LVII

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 1 EXPERIMENTAL VS. CONTROL GROUPS, GRADE 5

Source	DF	Mean Square	F
Treatment	1	254.36397	96.63*
Covariate	1	480.02416	182.35
Error	924	2.63243	--

*p < .001

The posttest adjusted mean gain (Table LVIII) was 1.26 for the experimental group (over two-thirds of a standard deviation), and 0.14 for the control group. In Table XII, page 240, this objective ranked fourth in a field of 24.

TABLE LVIII

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 1 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 5

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	535	4.78	1.81	6.03	1.74	6.04
Con	392	4.84	1.67	5.00	1.82	4.98

Specific Objective 2, "Pupils will be able to identify reasons for variations of the influence of alcohol on different individuals under different conditions," was measured by 10 items in Booklet I and 14 items in Booklet II. Analysis of covariance (Table LIX) based on these items found the experimental group scoring significantly higher than the control group (p < .001).

TABLE LIX

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 2
EXPERIMENTAL VS. CONTROL GROUPS, GRADE 5

Source	DF	Mean Square	F
Treatment	1	1422.13552	138.01*
Covariate	1	2932.53917	284.59
Error	924	10.30457	--

*p < .001

The posttest adjusted mean gain (Table LX) was 3.36 for the experimental group (very close to one standard deviation) compared with 0.45 for the control group. This objective ranked second of 24 in Table XII, page 240.

TABLE LX

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 2 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 5

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	535	15.87	3.41	19.14	3.63	19.23
Con	392	16.27	3.27	16.84	3.73	16.72

Specific Objective 3, "Pupils will be able to identify risks and rewards people perceive in drinking," was measured by 30 items in Booklet II. Analysis of covariance (Table LXI) of scores based on these items found the experimental group scoring significantly higher than the control group ($p < .001$).

TABLE LXI

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 3 EXPERIMENTAL VS. CONTROL GROUPS, GRADE 5

Source	DF	Mean Square	F
Treatment	1	348.91188	37.80*
Covariate	1	3126.86875	338.76
Error	924	9.23034	--

*$p < .001$

The posttest adjusted mean gain (Table LXII) was 1.54 for the experimental group (less than one half of the standard deviation and of modest size) compared with 0.20 for the control group. This objective ranked 17 of 24 in Table XII.

TABLE LXII

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 3 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 5

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	535	18.02	3.78	19.54	3.63	19.56
Con	392	18.12	3.70	18.35	3.43	18.32

Summary

Evaluations by teachers, pupils and *pre/post* test battery results yielded the following changes in the Fifth Grade Module:

1. Time for each of the five lessons was increased from 40 to 45 minutes.
2. Words unfamiliar to pupils were described or defined in parentheses immediately after the words.

Analysis of covariance for total scores on the two test booklets for fifth grade was significantly in favor of the experimental group ($p < .001$). The same was true for all three specific objectives. Combining these results with very high teacher ratings for overall value (mean of 4.95 on a five point scale) and very favorable pupil responses suggests that the Fifth Grade Module is ready to achieve its objectives.

However, while the authors are pleased with the results of field-testing, there is a point worth making. Even after exposure to the Module, mean scores were far below the maximum possible scores on the tests measuring the specific objectives. For example, with reference to Specific Objective 3, the mean posttest score was about 19 with a maximum of 30. Thus, while there was significant improvement from pretest to posttest, there is still much to be learned by these pupils in the years ahead.

SIXTH GRADE

Teacher Evaluations

Overall K-6 Module

Teachers (18) unanimously found the Introduction to be adequate for understanding the "whys" and "hows" of the Module, and none had suggestions for improvement. All teachers felt the description of Organization by Grade Level to be clear.

Seventeen teachers said Appendix A was helpful; one said it was not. No teachers wanted or suggested additional references. All teachers found Appendix B valuable, and none indicated any changes to improve it.

Sixth Grade Module

Thirteen teachers said the *pre/post* test batteries were satisfactory for measuring the effectiveness of the Module. One teacher said the tests were not suitable because her pupils were very slow and the questions were unclear and too time-consuming. The remainder did not answer the question, and no one suggested a better alternative.

All teachers found Objectives, Content, Teaching Techniques and Materials Needed clear and helpful and no one had suggestions for changing and/or improving any of them.

The following answers were provided by the total of 18 (except as otherwise stated) sixth grade teachers at the field-testing sites.

How would you characterize the pupils' reactions to the Module on the following scale of 1-5?

	1	2	3	4	5		Mean
Very bored				6	12	Very interested	4.67
Disliked teaching techniques			2	6	10	Liked teaching techniques	4.44
Participated less than usual			2	10	6	Participated more than usual	4.22
Disliked more than most other units or modules			2	6	10	Liked more than most other units or modules	4.44

Rate the lessons on the following scale of 1-5 in terms of their importance to you and your pupils. (One teacher did not answer any of the questions, thus N = 17.)

	Not Important				Very Important	
	1	2	3	4	5	Mean
Lesson I			2	4	11	4.53
Lesson II			3	4	10	4.41
Lesson III			1	6	10	4.53
Lesson IV			2	10	5	4.18
Lesson V		1	1	5	10	4.41

	How much time* did you spend on each lesson?	How much time* do you think is necessary to present the lesson effectively?
Lesson I	45 minutes	47 minutes
Lesson II	43 minutes	50 minutes
Lesson III	45 minutes	50 minutes
Lesson IV	42 minutes	49 minutes
Lesson V	45 minutes	49 minutes

*Reported by mean for all states combined.

Please indicate on the following scale of 1-5 how you feel about the Module in terms of the items listed.

	Negative		Neutral	Positive		
	1	2	3	4	5	Mean
Overall value				1	17	4.94
Relevance of objectives			1	3	14	4.72
Accuracy of information in content				1	17	4.94
Value of teaching techniques		2		5	11	4.39
Suitability for your pupils		1	1	3	13	4.56

How closely did you follow the teaching techniques included in the Module?

10 Completely.

8 Most of the time.

____ Some of the time.

____ Not at all.

Rate the teaching techniques on the following scale of 1-5, in terms of serving the objective(s) and/or purpose(s) of the related lesson. (One teacher did not respond to any of these items, thus N = 17.)

	Useless 1	2	3	4	Very Valuable 5	Mean
Fact Wheel			4	2	11	4.41
Thinking About Drinking				5	12	4.71
Mini-Lecture		1	3	9	4	3.94
Alcohol Pyramid		1	2	6	8	4.24
Charades		2	2	6	7	4.06
Trigger Films			1	1	15	4.82
Breaking Habits	1	1	3	5	7	3.94
*Loneliness Walk**		4	5	3	4	3.44
*Dear Abby Alcohol**			4	4	8	4.25
All Bottled Up	1	2		1	13	4.35
*Role-Play***		1	5	4	4	3.79

*Two teachers did not respond to this question.
**Four teachers did not respond to this question.

Do you believe the 6th Grade portion of the Module will be an influence on the behavior (when the time comes) of the pupils who participated in it?

_1_ Not a bit   _5_ Probably   _12_ Definitely Yes

One teacher stated that the Module will help to eliminate carnage on the highways and that it's a good key to safety. However, most specific comments were about the test booklets and these have been considered in Section II of this Appendix.

As indicated on the scale above, *Loneliness Walk* did not rate nearly so highly as the other techniques and it was eliminated from the Module. Discussion questions planned for it were placed elsewhere. The authors still feel that *Loneliness Walk* would have been a valuable activity for Lesson IV (especially for Specific Objective 2), but it is apparently awkward and/or difficult for some of the teachers to present effectively.

Descriptions of *Fact Wheel, Alcohol Pyramid, Charades* and *Trigger Films* were clarified, in view of questions, comments and suggestions by the teachers. "Processing out" details were added to *Dear Abby Alcohol.*

Teacher comments and the mean time teachers thought necessary to present lessons effectively resulted in an increase from 40 to 45 minutes for each of the five lessons.

Pupil Evaluations

Table LXIII shows that sixth graders are very positive about the value and approach of the Module. This response was reassuring to the authors in view of the professed lack of receptivity of sixth grade pupils to almost anything that goes on in a school setting.

TABLE LXIII

GRADE 6 PUPILS' RESPONSES TO QUESTION ONE (ITEMS 1-5) OF THE PUPIL'S EVALUATION FORM BY MEAN ($\overline{X}$)* AND TOTAL PERCENTAGE** FOR ALL STATES COMBINED
(N=503)

		%				
Items	Omitted	Strongly Agree 5	Agree 4	In The Middle 3	Disagree 2	Strongly Disagree 1
1. I enjoyed being in class and had fun learning. ($\bar{x}$=4.03)	0.4	37.6	35.6	20.3	4.2	2.0
2. I did more in class than I usually do. ($\bar{x}$=3.30)	0.6	17.5	25.4	32.6	17.5	6.0
3. I learned about alcohol and traffic safety. ($\bar{x}$=4.19)	0.4	44.1	37.4	12.5	3.8	1.8
4. I liked the games we played. ($\bar{x}$=4.36)	0.8	58.3	24.7	11.9	2.6	1.8
5. I learned things that will do me some good. ($\bar{x}$=4.37)	0.2	56.3	30.4	9.1	1.6	2.4

*Excluding omits.
**Rounded off.

Table LXIV synthesizes and summarizes the responses of sixth grade pupils to question 2, items 1-6, of the Pupil's Evaluation Form.

TABLE LXIV

GRADE 6 PUPILS' RESPONSES TO OPEN-ENDED QUESTION TWO (ITEMS 1-6) OF THE PUPIL'S EVALUATION FORM BY CATEGORY AND PERCENT FOR ALL STATES COMBINED

Items	Response Categories	Response %*
1. I liked this alcohol program because: (293 responses)	I learned a lot about alcohol	51.2
	it was fun	18.8
	I learned about the dangers of alcohol	5.5
	of the films and games	4.1
	it taught me not to drink	4.1
	it was good	3.8
	it was useful	3.1
	miscellaneous	9.5
2. My favorite thing was: (306 responses)	the movies	30.7
	the games	20.6
	Alcohol Pyramid	17.0
	Charades	7.8
	Role Playing	5.9
	Dear Abby Alcohol	3.9
	game board	3.3
	everything	2.3
	miscellaneous	8.7
3. I didn't like: (203 responses)	tests	30.0
	Loneliness Walk	17.2
	All Bottled Up	14.8
	movies	12.3
	Fact Wheel	8.4
	games	3.4
	everything	3.4
	Charades	3.0
	miscellaneous	7.5
4. I wish we did more of: (273 responses)	games	28.2
	movies	19.8
	Alcohol Pyramid	13.2
	everything	12.5
	Charades	6.6
	talking	5.9
	Role Playing	4.4
	miscellaneous	9.5

TABLE LXIV (continued)

Items	Response Categories	Response %*
5. The three most important things I learned were: (458 responses)	not to drink and drive	23.6
	the effects of alcohol on the body	19.2
	the dangers of alcohol	12.2
	not to drink	6.3
	not to mix alcohol and drugs	5.9
	where to go for help	5.2
	how to help others	4.1
	not to drive with someone who's been drinking	4.1
	not to smoke	4.1
	how to deal with peer pressure	3.3
	not to take drugs	2.4
	miscellaneous**	9.4
6. I think it's important to learn about alcohol because: (204 responses)	it's useful for the future	21.1
	it's good to know the dangers	17.6
	it may help in making a choice about alcohol	14.2
	now I won't drink	9.3
	it's a serious problem	6.4
	anyone can become an alcoholic	5.9
	I'll know how to handle it	4.9
	it makes you more careful	3.4
	I know where to go for help	3.4
	it helps to stop people from drinking	5.4
	miscellaneous	8.5

*Rounded off
**These included:

drinking slows coordination; how much is enough; that drinking depresses the cortex; how alcohol affects the family; not to listen to alcoholics; the % of alcohol in beer; you can have fun at a party without drinking; not to drink if you're a kid

Table LXV shows pupils' ratings of the activities presented during the Module. They also rated *Loneliness Walk* the lowest of all techniques and that is another reason it was eliminated. The modifications to other techniques described under Teacher Evaluations were also partially instigated by pupil evaluations.

TABLE LXV

GRADE 6 PUPILS' RESPONSES TO QUESTION THREE (ITEMS 1-11) OF THE PUPIL'S EVALUATION FORM BY MEAN ($\bar{X}$)* AND TOTAL PERCENTAGE** FOR ALL STATES COMBINED (N=503)

		%				
Item	Omitted	Excellent 5	Good 4	Average 3	Fair 2	Poor 1
1. Making a *Fact Wheel* ($\bar{x}$=3.27)	3.8	11.8	34.5	25.9	16.1	8.0
2. Film - *"Thinking About Drinking"* ($\bar{x}$=3.95)	3.6	33.0	38.8	15.5	5.6	3.6
3. *Mini-Lecture* ($\bar{x}$=3.54)	2.8	22.1	32.8	23.3	13.5	5.6
4. Playing *Alcohol Pyramid* ($\bar{x}$=4.40)	4.0	63.2	18.1	6.6	6.0	2.2
5. Playing *Charades* ($\bar{x}$=4.26)	4.4	55.9	22.3	8.0	5.8	3.8
6. *Trigger Films* ($\bar{x}$=4.20)	2.2	49.6	27.9	12.5	5.6	2.2
7. *Breaking Habits* ($\bar{x}$=3.44)	3.0	18.5	34.5	23.7	11.4	9.0
8. *Loneliness Walk* ($\bar{x}$=3.19)	5.6	18.7	25.7	20.9	13.3	15.7
9. *Dear Abby Alcohol* ($\bar{x}$=3.62)	8.4	28.5	24.4	21.0	10.8	7.0
10. Film - *"All Bottled Up"* ($\bar{x}$=3.15)	3.2	24.5	20.9	15.9	16.1	19.5
11. *Role-Playing* ($\bar{x}$=4.19)	9.9	47.3	21.5	14.3	5.0	2.0

*Excluding omits.
**Rounded off.

An entire class of sixth graders wrote essays on the value of the Module. They attested to its personal value to them, and said they had learned a lot about the hazards of drinking and driving that they would remember when they were older. They also indicated that the program was fun, but that more time should be given to it so that they would not be so rushed and crowded. They recommended that the Module should be given to all children their age in all schools throughout the United States. In short, they were very positive about the value of the program and believed it should be presented as widely as possible.

Tables LXIII and LXIV indicate that from the viewpoint of the sixth grade pupils themselves the Module was interesting, enjoyable and informative in relation to alcohol and traffic safety. Of the three most important things they learned, not to drink and drive was first, with the effects of alcohol on the body a close second. Their ratings (Table LXV) in regard to techniques and their related comments showed enough variation in preference to be helpful in modifying the Module.

Test Battery Results

The test battery for sixth grade consisted of three booklets. Booklet I contained five items; Booklet II, 74 items; Booklet III, 11 items. Analysis of covariance (Table LXVI) for the total score on the three booklets for the entire sample found the experimental group scoring significantly higher than the control group ($p < .001$).

TABLE LXVI

ANALYSIS OF COVARIANCE OF SCORES FOR TOTAL BOOKLETS EXPERIMENTAL VS. CONTROL GROUPS, GRADE 6

Source	DF	Mean Square	F
Treatment	1	5740.03727	136.58*
Covariate	1	41320.37833	983.21
Error	891	42.02587	--

*p < .001

On total booklets, all eight states showed significant results--six at p < .001 (California, Minnesota, Nebraska, New Jersey, New York, Vermont), one at p < .01 (Maine), and one at p < .05 (Ohio). Table LXVII reveals an experimental group adjusted mean gain of 4.77 (approximately one half the standard deviation) compared with -0.59 for the control.

TABLE LXVII

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON TOTAL BOOKLETS FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 6

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	495	54.13	8.34	58.80	9.74	58.90
Con	399	54.39	8.15	53.92	8.96	53.80

At sixth grade, the Module had seven (yes, seven!) objectives. Specific Objective 1, "Pupils will be able to identify signs of alcohol abuse," was measured by five items in Booklet I and seven items in Booklet II. Analysis of covariance (Table LXVIII) based on these items yielded nonsignificant results. Examination of means (Table LXIX) shows that experimental and control groups had essentially equal posttest adjusted means.

TABLE LXVIII

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 1
EXPERIMENTAL VS. CONTROL GROUPS, GRADE 6

Source	DF	Mean Square	F
Treatment	1	0.04157	0.01*
Covariate	1	1293.12035	410.51
Error	891	3.15003	--

*NS

TABLE LXIX

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND
ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 1 FOR
EXPERIMENTAL AND CONTROL GROUPS, GRADE 6

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	495	6.08	2.07	6.22	2.20	6.20
Con	399	6.03	2.02	6.20	2.07	6.22

Specific Objective 2, "Pupils will be able to identify ways the abuse of alcohol might affect an individual's ability to carry out personal, family and community responsibilities," was measured by twelve items in Booklet II. Analysis of covariance (Table LXX) based on these items found the experimental group scoring significantly higher than the control group ($p < .001$).

TABLE LXX

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 2
EXPERIMENTAL VS. CONTROL GROUPS, GRADE 6

Source	DF	Mean Square	F
Treatment	1	47.98224	18.53*
Covariate	1	1607.37544	620.77
Error	891	2.58932	--

*$p < .001$

The posttest adjusted mean gain (Table LXXI) was 0.26 for the experimental group and -0.06 for the control. While significant, the gain for the experimental group was small. This objective ranked 15 of 24 in Table XII, page 240.

TABLE LXXI

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, FOR ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 2 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 6

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	495	8.48	2.08	8.78	2.02	8.74
Con	399	8.33	2.01	8.22	2.18	8.27

Specific Objective 3, "Pupils will be able to identify alcoholism as a treatable condition," was measured by 13 items in Booklet II. Analysis of covariance (Table LXXII) based on these items resulted in a significant difference in favor of the experimental group ($p < .001$).

TABLE LXXII

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 3 EXPERIMENTAL VS. CONTROL GROUPS, GRADE 6

Source	DF	Mean Square	F
Treatment	1	95.76395	30.23*
Covariate	1	890.98644	281.26
Error	891	3.16787	--

*p < .001

The posttest adjusted mean gain (Table LXXIII) was 0.55 for the experimental group (about one fourth the standard deviation) and -0.12 for the control. This objective ranked 12 of 24 in Table XII.

TABLE LXXIII

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 3 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 6

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	495	8.51	1.94	9.05	1.99	9.06
Con	399	8.52	1.92	8.40	2.10	8.40

Specific Objective 4, "Pupils will be able to identify community resources available to help with drinking problems," was measured by 17 items in Booklet II. Analysis of covariance (Table LXXIV) of scores on these items resulted in a significant difference in favor of the experimental group ($p < .001$).

TABLE LXXIV

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 4 EXPERIMENTAL VS. CONTROL GROUPS, GRADE 6

Source	DF	Mean Square	F
Treatment	1	190.42969	38.01*
Covariate	1	649.36913	129.61
Error	891	5.01026	--

*p < .001

The posttest adjusted mean gain (Table LXXV) for the experimental group was 0.86 (about one third the standard deviation) compared with -0.06 for the control group. This objective ranked eighth of 24 in Table XII.

TABLE LXXV

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 4 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 6

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	495	10.09	2.35	10.95	2.39	10.95
Con	399	10.08	2.37	10.02	2.40	10.02

Specific Objective 5, "Pupils will be able to identify the effects of drinking on driving and pedestrian skills," was measured by five items in Booklet II and the entire 11 items in Booklet III. Analysis of covariance (Table LXXVI) based on these items was significantly in favor of the experimental group ($p < .001$).

TABLE LXXVI

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 1
EXPERIMENTAL VS. CONTROL GROUPS, GRADE 6

Source	DF	Mean Square	F
Treatment	1	639.61956	129.86*
Covariate	1	1395.50749	283.33
Error	891	4.92546	--

*$p < .001$

The posttest adjusted mean gain (Table LXXVII) for the experimental group was 1.77 (approximately two thirds the standard deviation and a substantial gain) compared with -0.10 for the control group. This objective ranked third of 24 objectives listed in Table XII.

TABLE LXXVII

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 5 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 6

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	495	7.95	2.31	9.68	2.67	9.72
Con	399	8.12	2.27	8.07	2.39	8.02

Specific Objective 6, "Pupils will be able to identify reasons young people have a special drinking and driving problem," was measured by 14 items of Booklet II. Analysis of covariance (Table LXXVIII) based on these items was significantly in favor of the experimental group ($p < .001$).

TABLE LXXVIII

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 6 EXPERIMENTAL VS. CONTROL GROUPS, GRADE 6

Source	DF	Mean Square	F
Treatment	1	289.97412	57.58*
Covariate	1	573.45795	113.87
Error	891	5.03629	--

*p < .001

The posttest adjusted mean gain (Table LXXIX) was 1.13 for the experimental group (about half the standard deviation and substantial) and -0.26 for the control group. This objective ranked fifth of the 24 in Table XII.

TABLE LXXIX

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 6 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 6

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	495	8.39	2.11	9.48	2.37	9.52
Con	399	8.63	2.18	8.42	2.40	8.37

Specific Objective 7, "Pupils will be able to identify ways to deal with potentially hazardous drinking and driving situations," was measured by six items in Booklet II. Analysis of covariance (Table LXXX) based on these items did not yield significant results.

TABLE LXXX

ANALYSIS OF COVARIANCE OF SCORES FOR SPECIFIC OBJECTIVE 7 EXPERIMENTAL VS. CONTROL GROUPS, GRADE 6

Source	DF	Mean Square	F
Treatment	1	1.03676	0.68*
Covariate	1	217.20269	142.74
Error	891	1.52170	--

*NS

As Table LXXXI reveals there was practically no difference between pretest and posttest means. Either the Module was making no impact in terms of this objective or the test items were not capable of measuring it. Another possible explanation is the limit imposed by six items when subjects get close to five of them correct on the pretest.

TABLE LXXXI

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS, AND ADJUSTED POSTTEST MEANS ON SPECIFIC OBJECTIVE 7 FOR EXPERIMENTAL AND CONTROL GROUPS, GRADE 6

		Pretest		Posttest		Posttest (Adj.)
Group	N	Mean	SD	Mean	SD	Mean
Exp	495	4.64	1.33	4.64	1.29	4.65
Con	399	4.68	1.37	4.59	1.38	4.58

Summary

Evaluations by teachers, pupils and *pre/post* test battery results yielded the following changes in the Sixth Grade Module:

1. Time for each of the five lessons was increased from 40 to 45 minutes.
2. *Loneliness Walk* was dropped from the Module.
3. Descriptions of *Fact Wheel*, *Alcohol Pyramid*, *Charades* and *Trigger Films* were clarified (and some discussion questions were added).
4. "Processing out" details were added to *Dear Abby Alcohol*.

Analysis of covariance for total scores on the three test booklets for sixth grade was significantly in favor of the experimental group ($p < .001$). The same was true for five of the seven specific objectives. The remaining two objectives showed nonsignificant results. It is anticipated that the changes described above in the field-testing version of the Module will contribute to greater impact on the two objectives when the present version of the Module is presented.

The generally positive test battery results combined with very high teacher ratings for overall value (4.95 on a five point scale) and favorable pupil responses suggest that the Sixth Grade Module is capable of achieving its objectives.

The authors are mindful, however, that a post Module mean score of 59 out of a possible 90 leaves room for improvement. While it is expected that scores will be better for those who are exposed to the final version of the Module, it seems that for sixth grade pupils there will still be plenty of room for learning more about alcohol and traffic safety as they move into more advanced grades.

SUMMARY OF GENERAL CHANGES IN THE OVERALL (K-6) MODULE

Evaluation of the field-testing version of the Module was based on the responses of teachers and pupils to open-ended questions and rating scales, and on the results of *pre/post* test batteries administered in a controlled study with 5,687 pupils at 51 elementary schools in eight states.

In the preceding pages we have provided detailed grade-by-grade results of these evaluations and the changes they yielded in moving the field-testing version of the Module to the present version. What follows is a summary of some of the more important changes that cut across more than one grade level.

1. The time allotted for lessons has been increased; from 20 to 30 minutes for K-3, and from 40 to 45 for 4-6.
2. Words unfamiliar to or difficult for pupils have been described or defined in parentheses immediately after the word wherever it first appears.
3. Two activities have been dropped from the Module: *Poetry Building* at grade 4 and *Loneliness Walk* at grade 6.
4. Game boards were found too cumbersome, and all games requiring such boards were redesigned so the "boards" could be drawn on the chalkboard and cards affixed to them with an adhesive.

Pre/post test batteries used in field-testing follow in Section II of this Appendix, along with instructions for administration and scoring and other relevant information. The authors have provided data and comments valuable for modifying these batteries for future administration if the field-testing versions do not seem satisfactory.

SECTION II: TEST BATTERIES--KINDERGARTEN THROUGH SIXTH GRADE

Introduction

The authors prepared preliminary *pre/post* test batteries by writing items for each of the 24 specific objectives of the Module (listed on pages 14-17). There were actually seven test batteries, one for each grade level, K-6. The assignment of specific objectives to specific grades is shown on page 224.

The preliminary test batteries, totaling 575 items, were organized as test booklets and administered to 706 pupils in four school districts in two states. There were at least 70 pupils at each grade level. Specific numbers of pupils by grade are provided on page 225.

Preliminary (pilot) test battery data were subjected to routine item analysis, and items chosen for the test batteries included in this Section generally were selected on the basis of a difficulty rating of 0.71 or lower and a discrimination index of +0.30 or above.

These and other criteria drastically shortened the preliminary test batteries--from 24 booklets and 575 items to 15 booklets and 310 items. These reductions are reported by grade level on page 226. While complete item data for the pilot test batteries and for the field-testing batteries is not included in this Section, it is kept in storage at the Safety Research and Education Project, Teachers College, Columbia University. See Appendix C for more details.

In addition to measuring Module impact by grade level through test batteries, items on the batteries were organized to measure specific objectives as well. More details in this regard are found on page 226, and pages 231 and 232.

Alpha reliability coefficients as measures of internal consistency for test booklets for each grade are given on pages 227-228. Test-retest reliability coefficients for these same booklets as well as for the 24 specific objectives appear on pages 228-229. The location of test items to measure each of the 24 specific objectives is given on pages 231-232. and the mean time it took to administer each test booklet is stated by grade level on page 233.

In short, those interested in the development of the test batteries should read pages 224-233. Further, persons interested in giving the batteries and analyzing the results can use pages 234-241, as a guide.

The test batteries, administered before and after the Module, within an experimental design, can be used to measure total impact of the Module by grade level through analysis of covariance of total test booklet scores for experimental and control groups. The batteries can be used in this same way to measure change in specific objectives. For this plan, the clear identification of test batteries as experimental or control, and pre or post, is imperative. At field-testing sites the authors handled this matter by marking experimental group batteries Pre (E) and Post (E). These booklets were white and yellow, respectively. Control group batteries were marked Pre (C) and Post (C), and were blue and green, respectively. This is a must procedure as all test booklets and their items are identical otherwise. (That is why we show only one copy marked Pre (E) in this Section.)

The instructions given at the training sessions for the cooperating teachers at field-testing sites might be of interest to those who would employ test batteries within a controlled experimental design.

Instructions for Administration of Test Batteries

At each school there will be experimental (E) and control (C) classes. Pupils in E classes at a specified grade level will be exposed to the Module, those in C classes will not. E and C classes should be taken from the same school. The number of pupils in E and C classes will vary by school.

Test batteries prepared for each grade level (K-6) relate to the Module's objectives for that grade level. For E pupils the test batteries are to be given immediately before the Module is presented and immediately after the completion of the Module. For C pupils (to repeat, those not exposed to the Module) the batteries are to be given at times matching those for E pupils.

Four bundles of test forms sufficient for your needs will be given to you at the training session. One bundle will be marked *Pre (E)*, another *Post (E)*. *Pre (E)* should be administered to E pupils immediately before Lesson I, *Post (E)* immediately after Lesson V. A third bundle will be marked *Pre (C)*, a fourth *Post (C)*. *Pre (C)* should be administered to C pupils at a time matching the administration of *Pre (E)*, *Post (C)* at a time matching *Post (E)*.

Steps for *Pre (E)* and *Pre (C)* administrations:

1. Well in advance, write each pupil's name in the place provided in the upper right hand corner of the test booklet.
2. Administer the test as indicated on the cover sheet and following Instructions for Teachers, included with the pretest bundles.
3. Collect the test booklets, making sure pupils have answered all questions.
4. Keep the pretest until posttests have been given after Lesson V (or the equivalent elapse of time for C classes); scoring and analysis will be done by the study team.

Steps for *Post (E)* and *Post (C)* administrations:

1. Well in advance, write each pupil's name in the place provided on the test battery.
2. Administer the test as indicated on the cover sheet and following Instructions for Teachers, included with the posttest bundles.
3. Collect the test booklets, making sure pupils have answered all questions.
4. Collate pre and post test booklets by pupil's name for both E and C classes.

5. Send the collated test booklets to the study team in the way described at the training session.

I know you appreciate the need to be certain that *Pre (E)* and *Post (E)* test batteries are given to pupils exposed to the Module (experimental classes), while *Pre (C)* and *Post (C)* are given to pupils *not* exposed (control classes). Moreover, for both E and C classes, it is imperative that the sequence be pre to post. A mistake in either regard would confound results.

In another plan, in circumstances where it is impractical to give a pretest, the batteries can be administered only after the Module (it should be said that pre and post batteries are identical) to see what pupils know after they complete it.

Both of these plans can be used to see where the Module might have to be improved to achieve its objectives--but the former is much better suited to this purpose than the latter.

What follows in this Section are the test batteries (booklets) for each grade level with instructions for administration and scoring (always the number correct), and other pertinent details. All test batteries are marked with correct answers.

The most common complaint from teachers administering the test battery was the unfamiliarity or difficulty of words used in the test questions. While the words of concern to some of these teachers are listed by grade level, it should be borne in mind that the test batteries were administered to control groups not exposed to the Module as well as to experimental groups who were. Upon investigation, the authors learned that considerable of the difficult words were covered in the Module and that experimental group posttesting showed little or no difficulty with them.

KINDERGARTEN

The average time needed to administer the Kindergarten test booklet is 20 minutes. There is one specific objective measured at the Kindergarten level. All twenty items are used to measure this objective. The Kindergarten Booklet (and Objective 1) has an internal consistency reliability coefficient of .88, and a test-retest coefficient of .69. See pages 245-247 for a discussion of the results of the field-testing administration of the Kindergarten Booklet.

Some of the field-testing teachers made the following comments about problems with the test battery:

1. Pupils had difficulty differentiating cans of beer and cans of orange juice.
2. The inability of some pupils to read was frustrating to them; readers had a definite advantage over nonreaders.
3. There were too many unfamiliar words (i.e., "soda" in Nebraska and Ohio); vocabulary was too difficult.
4. Some pupils could not handle the writing aspect, and had to answer orally for the teacher to record.
5. Tests were too long for Kindergarten pupils.
6. The teacher had to practice making "X's" with the class.
7. Pupils confused page numbers with numbers on test items.

The following pages contain instructions for administration and a copy of the test booklet with correct answers marked.

Instructions for Teachers

1. Administer The Kindergarten Booklet to your entire class.

2. Be sure all questions are answered by all pupils.

3. Give each child a booklet, on which you have written his or her name in the space indicated.

4. Say: We are going to do some things with the pictures on these pages. Put your finger on the little block. (Hold up the booklet so that you can show the pupils where to put their fingers. Check to see that all pupils are looking at the correct picture.)

5. Say: Here we have a picture of a glass of wine and a container of milk. Which one has alcohol in it? (Wait for an answer. If someone says the wine, say, "That's right." If no one gives the answer, tell the pupils that wine has alcohol in it.) Then say, we are going to make a mark like this X (illustrate on the board) on the glass of wine to show that it has alcohol in it. Now each of you make this mark (point to the illustration on the board) on the glass of wine. (Check to see that each child has marked his/her picture correctly.)

6. Say: We are going to do all of the pictures this way. I will tell you to mark the picture of the one that has alcohol in it. You will use this mark (point to the illustration on the board) to show the one that has alcohol in it.

   Say: Put your finger on the little round ball. (Item 1) Here we have a bottle of soda and a bottle of champagne. Mark the one that has alcohol in it.

   Say: Please turn the page.

   Say: Put your finger on the little flower. (Item 2) Here we have a glass of beer and a cup of coffee. Mark the one that has alcohol in it.

   Say: Put your finger on the little cat. (Item 3) These pictures show a can of apple juice and a cocktail. Mark the one that has alcohol in it.

   Say: Put your finger on the little round ball. (Item 4) These pictures show a glass of milk and a glass of wine. Mark the one that has alcohol in it.

   Say: Please turn the page.

   Say: Put your finger on the little block. (Item 5) These pictures show a bottle of wine and a bottle of soda. Mark the one that has alcohol in it.

Say: Put your finger on the little flower. (Item 6) These pictures show a glass of Kool-Aid and a glass of gin and lemonade. Mark the one that has alcohol in it.

Say: Put your finger on the little cat. (Item 7) These pictures show a can of cola and a can of beer. Mark the one that has alcohol in it.

Say: Please turn the page.

Say: Put your finger on the little round ball. (Item 8) These pictures show a cup of hot-buttered rum and a cup of tea. Mark the one that has alcohol in it.

Say: Put your finger on the little block. (Item 9) These pictures show a glass of whiskey and a glass of ice water. Mark the one that has alcohol in it.

Say: Put your finger on the little flower. (Item 10) These pictures show a glass of vodka and a glass of lemonade. Mark the one that has alcohol in it.

Say: Please turn the page.

Say: Put your finger on the little cat. (Item 11) Here we have a glass of lemonade and a glass of beer. Mark the one that has alcohol in it.

Say: Put your finger on the little round ball. (Item 12) These pictures show a bottle of wine and a container of chocolate milk. Mark the one that has alcohol in it.

Say: Put your finger on the little block. (Item 13) Here we have a cocktail and a cup of coffee. Mark the one that has alcohol in it.

Say: Please turn the page.

Say: Put your finger on the little flower. (Item 14) These pictures show a glass of milk and a glass of cola with rum. Mark the one that has alcohol in it.

Say: Put your finger on the little cat. (Item 15) Here we have a can of beer and a can of apple juice. Mark the one that has alcohol in it.

Say: Put your finger on the little round ball. (Item 16) These pictures show a cup of tea with lemon and a cup of coffee with whiskey. Mark the one that has alcohol in it.

Say: Please turn the page.

Say: Put your finger on the little block. (Item 17) Here we have a glass of champagne and a glass of Kool-Aid. Mark the one that has alcohol in it.

Say: Put your finger on the little flower. (Item 18) These pictures show a glass of scotch and a glass of soda. Mark the one that has alcohol in it.

Say: Put your finger on the little cat. (Item 19) Here we have a glass of wine and a glass of Kool-Aid. Mark the one that has alcohol in it.

Say: Please turn the page.

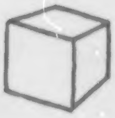
Say: Put your finger on the little round ball. (Item 20) These pictures show a glass of orange juice with gin and a bottle of soda. Mark the one that has alcohol in it.

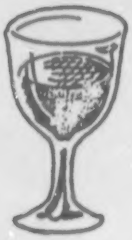
(Pre E)

Pupil's Name ______________________
(Last) (First)

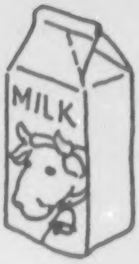
KINDERGARTEN BOOKLET

Sample:



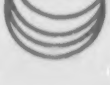


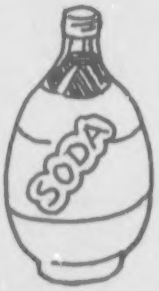
GLASS OF WINE



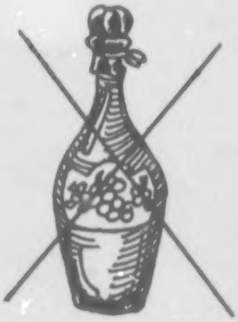
CONTAINER OF MILK

1.



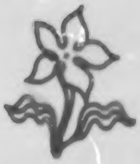


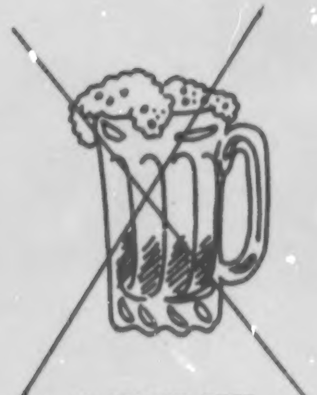
BOTTLE OF SODA



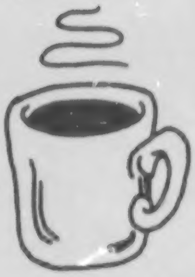
BOTTLE OF CHAMPAGNE

2.



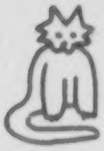


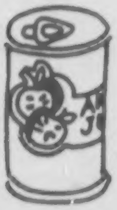
GLASS OF BEER



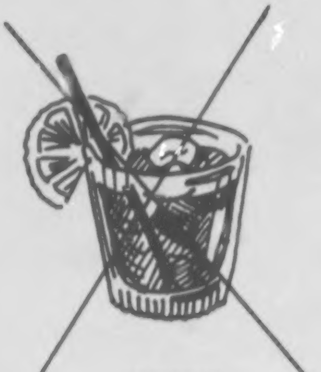
CUP OF COFFEE

3.



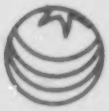


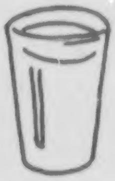
CAN OF APPLE JUICE



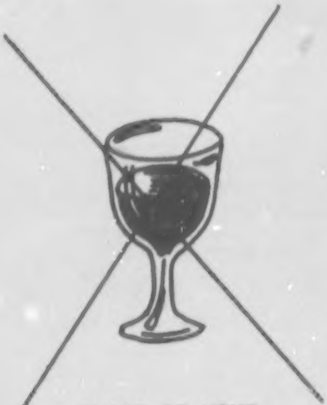
COCKTAIL

4.



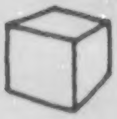


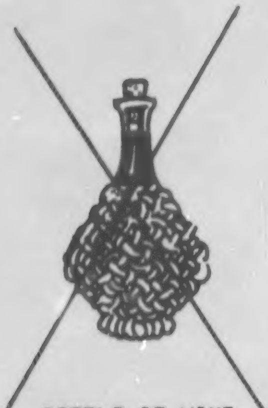
GLASS OF MILK



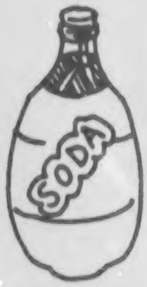
GLASS OF WINE

5.



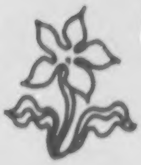


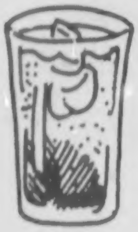
BOTTLE OF WINE



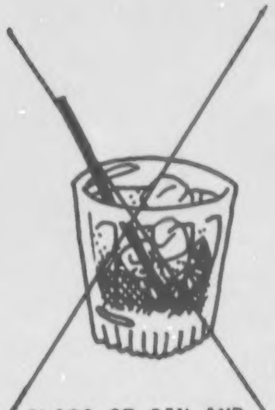
BOTTLE OF SODA

6.



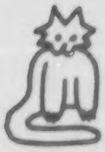


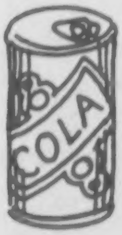
GLASS OF KOOL-AID



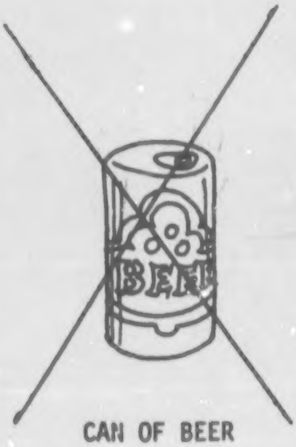
GLASS OF GIN AND LEMONADE

7.



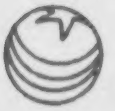


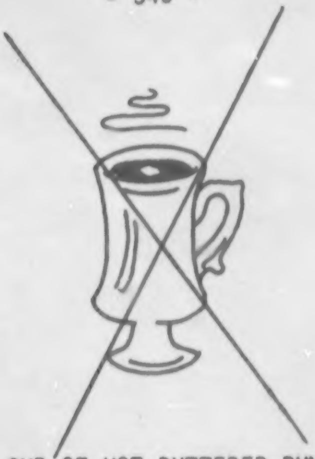
CAN OF COLA



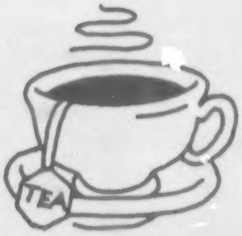
CAN OF BEER

8.



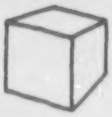


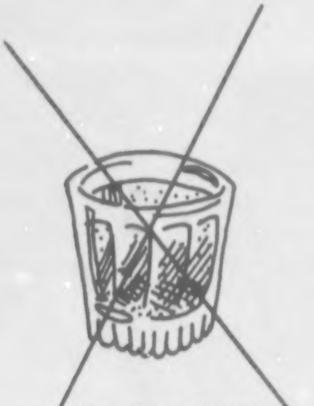
CUP OF HOT-BUTTERED RUM



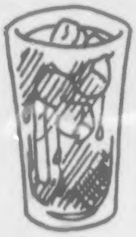
CUP OF TEA

9.



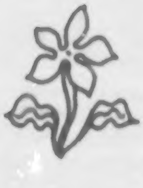


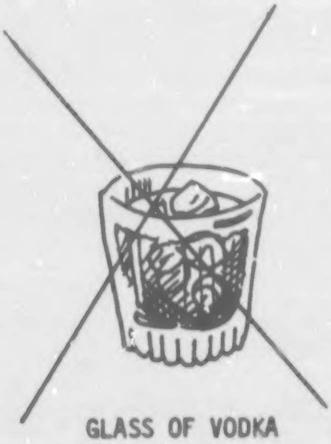
GLASS OF WHISKEY



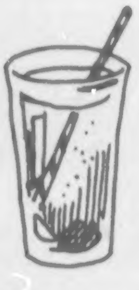
GLASS OF ICE WATER

10.



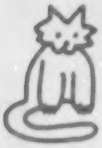


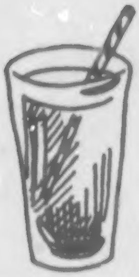
GLASS OF VODKA



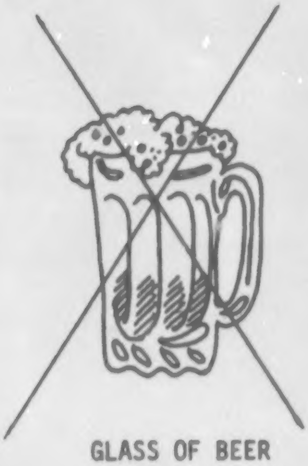
GLASS OF LEMONADE

11.



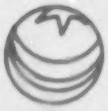


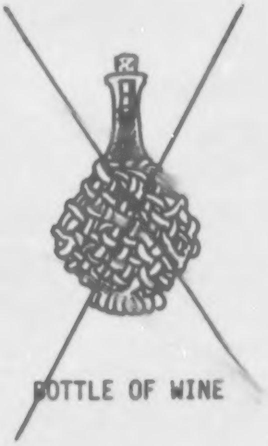
GLASS OF LEMONADE



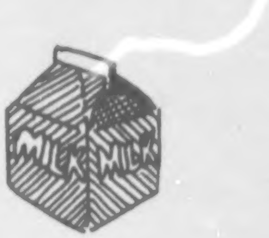
GLASS OF BEER

12.



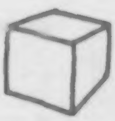


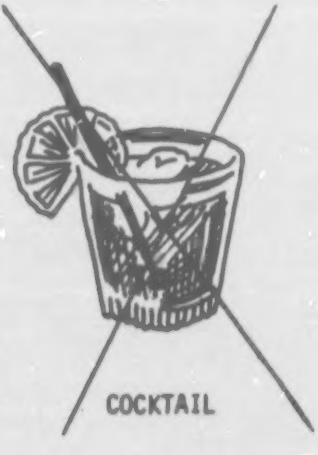
BOTTLE OF WINE



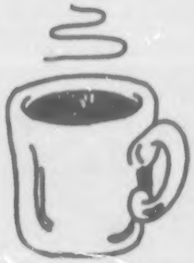
CONTAINER OF
CHOCOLATE MILK

13.



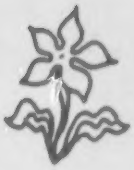


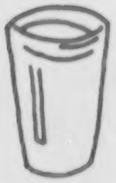
COCKTAIL



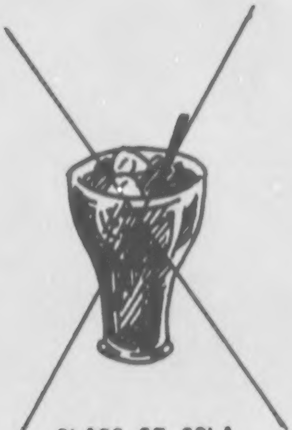
CUP OF COFFEE

14.



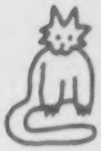


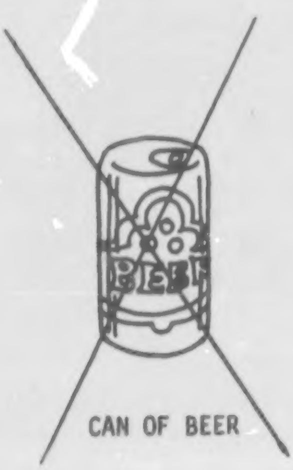
GLASS OF MILK



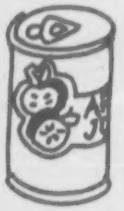
GLASS OF COLA
WITH RUM

15.



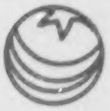


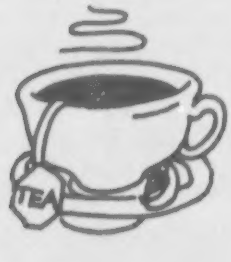
CAN OF BEER



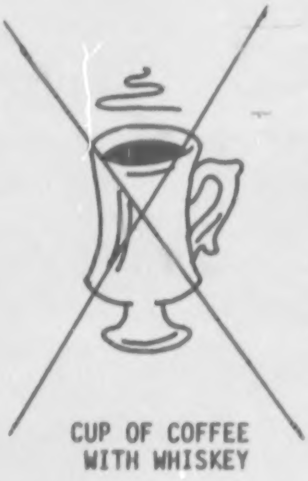
CAN OF APPLE JUICE

16.



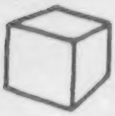


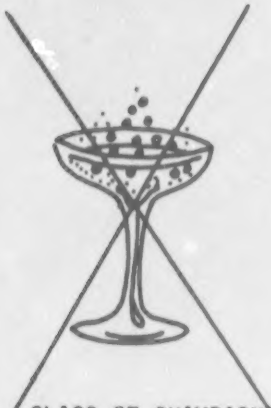
CUP OF TEA
WITH LEMON



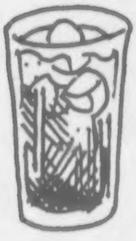
CUP OF COFFEE
WITH WHISKEY

17.



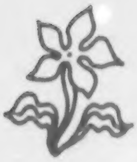


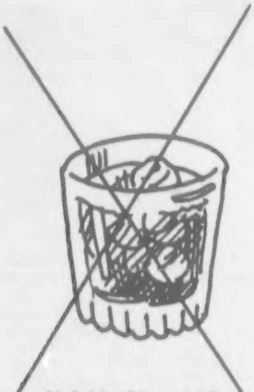
GLASS OF CHAMPAGNE



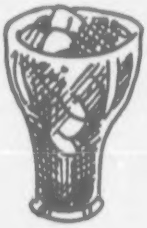
GLASS OF KOOL-AID

18.



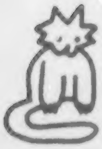


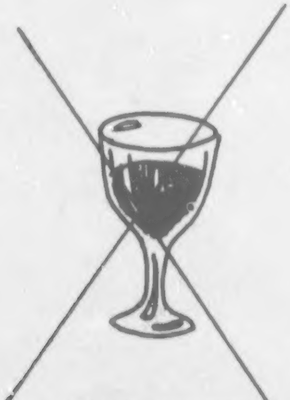
GLASS OF SCOTCH



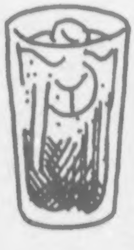
GLASS OF SODA

19.



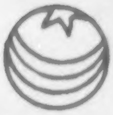


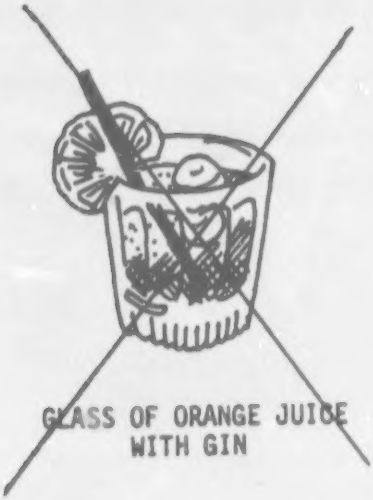
GLASS OF WINE



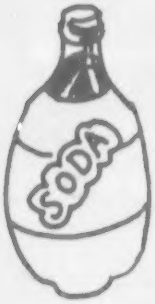
GLASS OF KOOL-AID

20.





GLASS OF ORANGE JUICE
WITH GIN



BOTTLE OF SODA

FIRST GRADE

The average times needed to administer the test booklets for first grade were: 14 minutes for Booklet I, 11 minutes for Booklet II, 12 minutes for Booklet III, with a total average time of 36 minutes for all three booklets. Total booklets for first grade have an internal consistency reliability coefficient of .52 and a test-retest coefficient of .53.

There are two specific objectives measured at first grade. Specific Objective 1 is measured by items 1-10 of Booklet I and items 1, 2, 4, 5, and 10 of Booklet III. The internal consistency reliability coefficient is .45 for this objective. Specific Objective 2 is measured by items 1-5 of Booklet II and items 3, 6, 7, 8, 9, 11, and 12 of Booklet III. The internal consistency reliability coefficient for this objective is .44.

See pages 252-255 for a discussion of the results of the field-testing administration of the first grade booklets.

Some of the field-testing teachers made the following comments about problems with the test battery:

1. The language level was too high and test instructions were too long and wordy for first graders.
2. Pupils confused "X's" and "O's" (Booklet I).
3. Answers had to be reported orally by many pupils.
4. One large test booklet would be better than three small ones.
5. Children can write their own names on the test. [But not all of them--a pupil named Larry took three lines: LA
   RR
   Y.]
6. Circling YES or NO would be simpler than marking happy or sad faces (Booklet III).

The following pages contain instructions for administration and a copy of the test battery for first grade with the correct answers marked.

Instructions for Teachers

1. Administer Booklet I, Booklet II and Booklet III to your entire class.
2. Be sure all questions in all booklets are answered by all pupils.

Booklet I Instructions

1. Give each child a copy of Booklet I on which you have written his or her name in the space indicated.
2. Read the directions on the test booklet to the pupils. Read the sample question. On the board illustrate the X to be marked on each picture that shows something that contains a drug and the O to be marked on each picture that shows something that does not contain a drug.
3. Make sure that pupils have marked the sample item correctly before starting the test. Then identify each item in questions 1-10 for the pupils as follows:

Say: Please turn the page.

Say: Look at question 1. The pictures show a cup of coffee and a container of milk. Do any of these pictures show something that contains a drug? Mark an X on the pictures that show something that contains a drug. (Pause) Do any of the pictures show something that does not contain a drug? Mark an O on the pictures that show something that does not contain a drug.

Say: Look at question 2. The pictures show a glass of cola and a glass of beer. Do any of these pictures show something that contains a drug? Mark an X on the pictures that show something that contains a drug. (Pause) Do any of the pictures show something that does not contain a drug? Mark an O on the pictures that show something that does not contain a drug.

Say: Please turn the page.

Say: Look at question 3. The pictures show a can of apple juice and a can of orange juice. Do any of the pictures show something that contains a drug? Mark an X on the pictures that show something that contains a drug. (Pause) Do any of the pictures show something that does not contain a drug? Mark an O on the pictures that show something that does not contain a drug.

Say: Look at question 4. The pictures show a strawberry ice cream soda and a chocolate ice cream soda. Do any of the pictures show something that contains a drug? Mark an X on the pictures that show something that contains a drug. (Pause) Do any of the pictures show something that does not contain a drug? Mark an O on the pictures that show something that does not contain a drug.

Say: Please turn the page.

Say: Look at question 5. The pictures show a cocktail and a cup of tea. Do any of the pictures show something that contains a drug? Mark an X on the pictures that show something that contains a drug. (Pause) Do any of the pictures show something that does not contain a drug? Mark an O on the pictures that show something that does not contain a drug?

Say: Look at question 6. The pictures show a vanilla milk shake and a cola ice cream soda. Do any of the pictures show something that contains a drug? Mark an X on the pictures that show something that contains a drug. (Pause) Do any of the pictures show something that does not contain a drug? Mark an O on the pictures that show something that does not contain a drug.

Say: Please turn the page.

Say: Look at question 7. The pictures show a can of beer and a glass of iced tea. Do any of the pictures show something that contains a drug? Mark an X on the pictures that show something that contains a drug. (Pause) Do any of the pictures show something that does not contain a drug? Mark an O on the pictures that show something that does not contain a drug.

Say: Look at question 8. The pictures show a glass of water and a glass of lemonade. Do any of the pictures show something that contains a drug? Mark an X on the pictures that show something that contains a drug. (Pause) Do any of the pictures show something that does not contain a drug? Mark an O on the pictures that show something that does not contain a drug.

Say: Please turn the page.

Say: Look at question 9. The pictures show a glass of chocolate milk and a bottle of grape juice. Do any of the pictures show something that contains a drug? Mark an X on the pictures that show something that contains a drug. (Pause) Do any of the pictures show something that does not contain a drug? Mark an O on the pictures that show something that does not contain a drug.

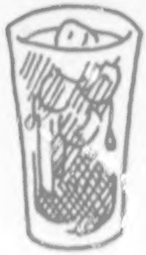
Say: Look at question 10. The pictures show a glass of iced coffee and a glass of wine. Do any of the pictures show something that contains a drug? Mark an X on the pictures that show something that contains a drug. (Pause) Do any of the pictures show something that does not contain a drug? Mark an O on the pictures that show something that does not contain a drug.

Pupil's Name ______________________
(Last) (First)

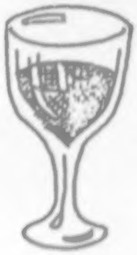
FIRST GRADE BOOKLET I

Directions: Look at each picture given below. Some are pictures of things that contain drugs. Some are pictures of things that do not contain drugs. Look at the sample question.

Sample:



A GLASS OF ICE WATER



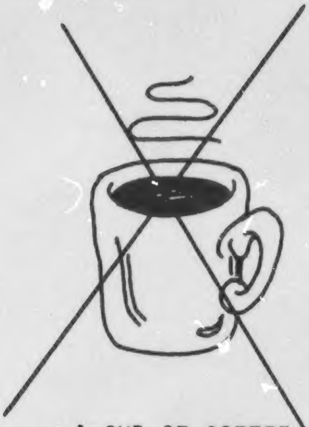
A GLASS OF WINE

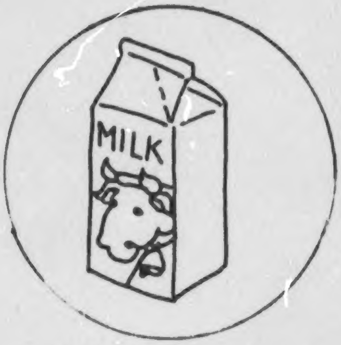
The first picture shows a glass of ice water and the second shows a glass of wine. Which one contains a drug? The glass of wine does. Mark an X over the glass of wine. Which does not contain a drug? The glass of water does not contain a drug. Mark an O on it.

In each question, two pictures are shown. In some questions, only one picture may be of things that contain drugs. In some questions, both pictures may be of things that contain drugs. In some questions, none of the pictures are of things that contain drugs.

Look at each of the pictures carefully. Mark an X on each picture that shows something that contains a drug. Mark an O on each picture that does not contain a drug.

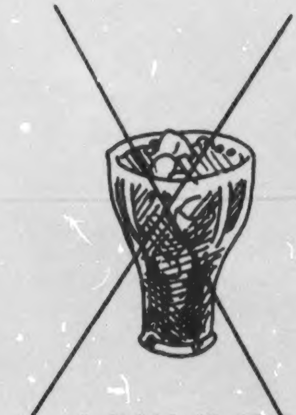
1.

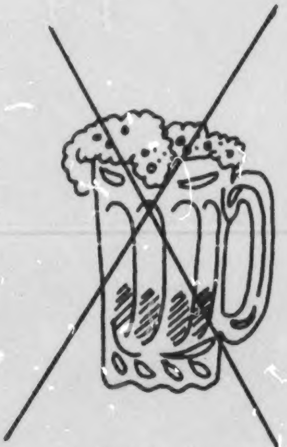

A CUP OF COFFEE



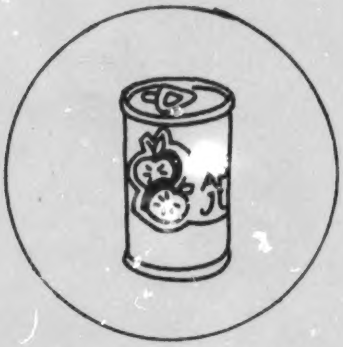
A CONTAINER OF MILK

2.

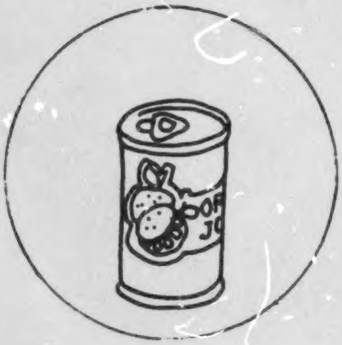

A GLASS OF COLA


A GLASS OF BEER

3.

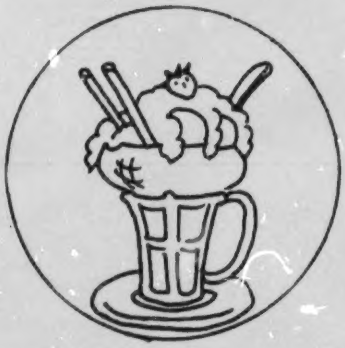


A CAN OF APPLE JUICE

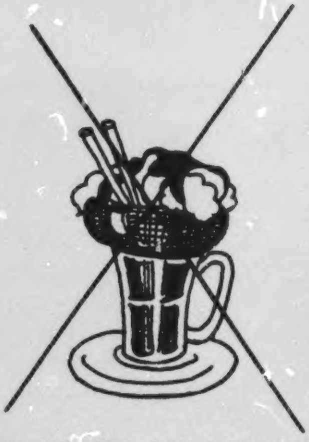


A CAN OF ORANGE JUICE

4.

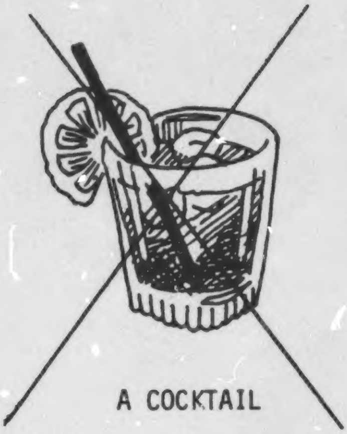


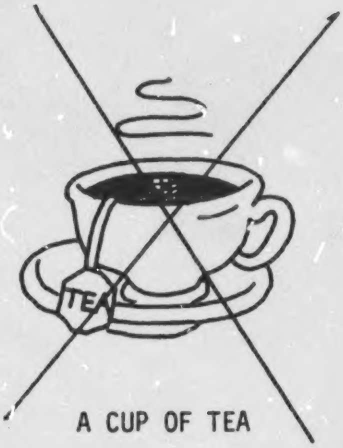
A STRAWBERRY ICE CREAM SODA



A CHOCOLATE ICE CREAM SODA

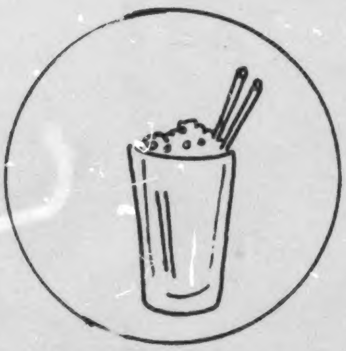
5.

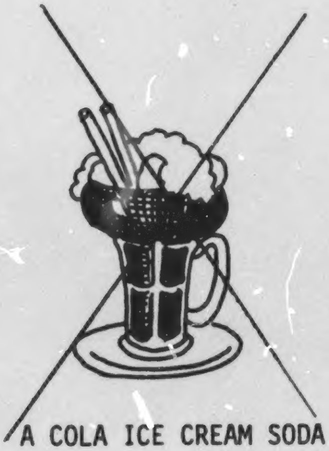

A COCKTAIL



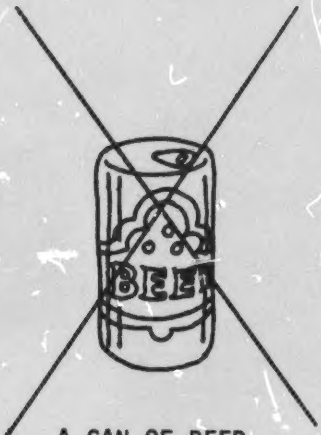
A CUP OF TEA

6.

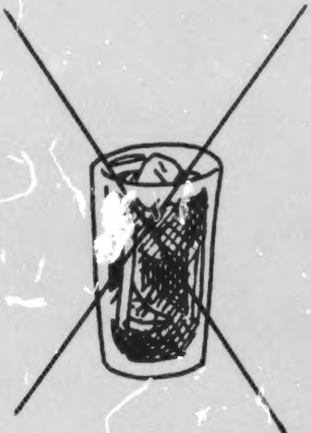

A VANILLA MILK SHAKE


A COLA ICE CREAM SODA

7.

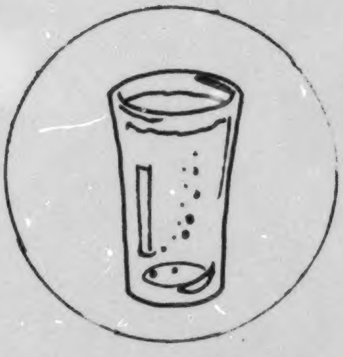


A CAN OF BEER

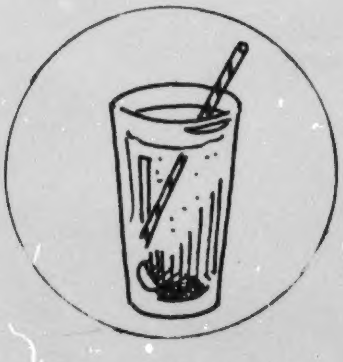


A GLASS OF ICED TEA

8.

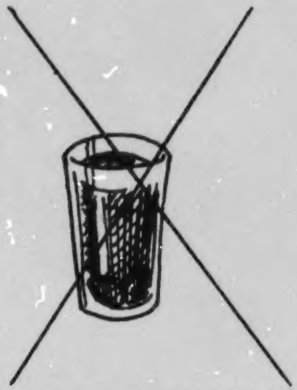


A GLASS OF WATER

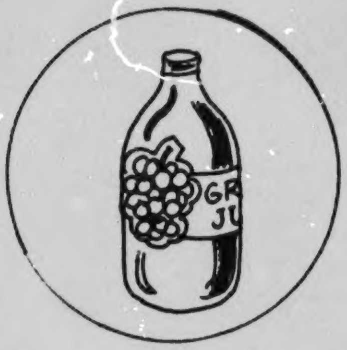


A GLASS OF LEMONADE

9.

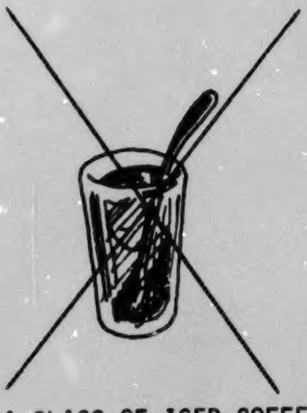


A GLASS OF CHOCOLATE MILK

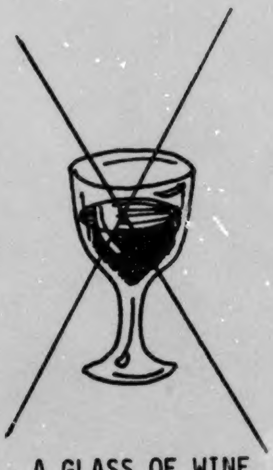


A BOTTLE OF GRAPE JUICE

10.



A GLASS OF ICED COFFEE



A GLASS OF WINE

Booklet II Instructions

1. Give each child a copy of Booklet II on which you have written his or her name in the space provided.

2. Say to the pupils:

Sample question: This person drank three glasses of something. Right after drinking, the person crossed the street. He waited for the green traffic light, looked to see whether the cars had stopped, then he crossed the street.

Now look at your test. The sample shows pictures of a glass of beer and a glass of cola. From the way that the person acted in crossing the street, do you think he had three glasses of beer or three glasses of cola?

Wait for an answer. If someone says cola, say "that's right." The person crossed the street carefully and used good judgment. So he was probably drinking cola, not beer. Mark an X on the cola. (Show pupils how to mark an X and check to see that all pupils understand what to do.) Then start the test, reading the following stories for questions 1-5, respectively.

1. This person is usually very quiet, does not talk very much and never argues. The person went to a party and had five drinks of something and started to argue and fight with another person. Look at question 1 in your test booklet. The pictures show a cup of coffee and a cocktail. From the way this person was acting, mark an X on what you think the person was drinking.

Say: Please turn the page.

2. This person had four drinks of something when he was eating in a restaurant. When the person got up from the table and started walking out, he walked straight and did not bump into anything. Look at question 2 in your test booklet. The pictures show a cup of tea and a glass of wine. From the way this person was acting, mark an X on what you think the person was drinking.

3. This person was very quiet and sad. He had three drinks and started talking to everyone and started to laugh a lot. He looked very happy. Look at question 3. The pictures show a can of apple juice and a glass of champagne. Mark an X on what you think the person was drinking.

Say: Please turn the page.

4. This person is usually very kind to animals. After having four glasses of something to drink, this person kicked his dog and told the dog to be quiet when he barked for his dinner. Look at question 4 in your test booklet. The pictures show a glass of iced tea and a cocktail. Mark an X on what you think the man was drinking.

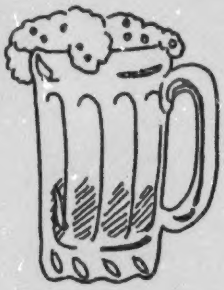
5. This person had four drinks of something at a party. As he left the party, this person smiled, said good-bye to his friends and walked in a straight line to his car. Then he drove home carefully, obeying all of the traffic rules. Look at question 5. The pictures show a glass of champagne and a cup of coffee. From the way this person acted, mark an X on what you think he was drinking.

Pupil's Name ______________________________
(Last) (First)

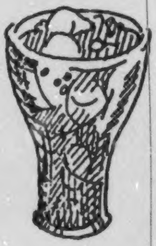
FIRST GRADE BOOKLET II

Directions: I will tell you some stories about some people who have been drinking something. You are to try to figure out what each person was drinking from the way that the person acts. For each question you are to mark an X on the picture that shows what the person could have been drinking to make him act like he did.

Sample:



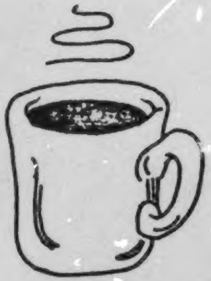
BEER



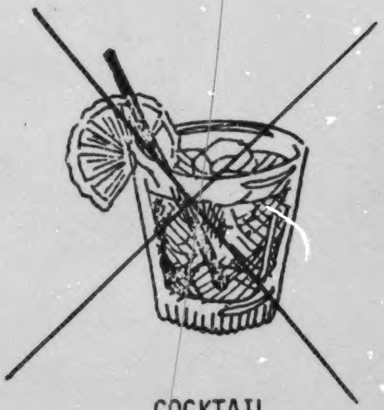
COLA

You should have marked an X on the cola. The person crossed the street carefully and used good judgment so he was probably not drinking beer.

1.

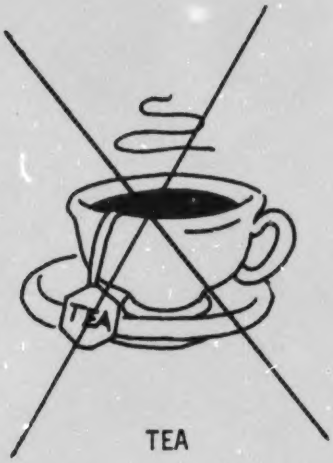


COFFEE

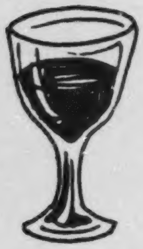


COCKTAIL

2.

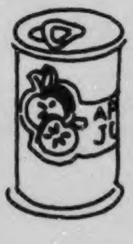


TEA

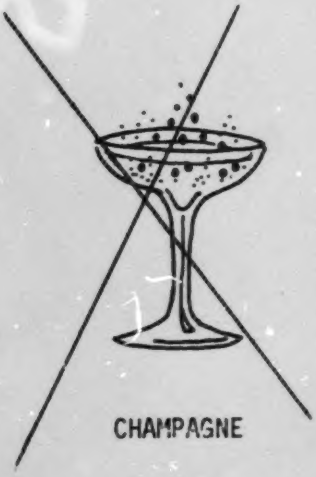


WINE

3.

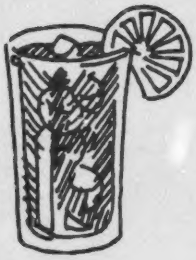


APPLE JUICE

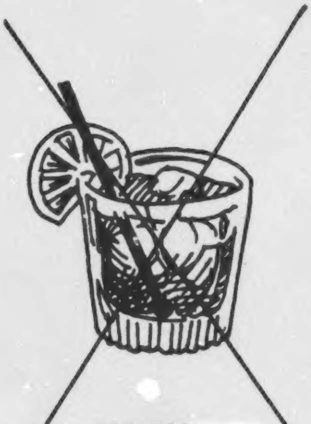


CHAMPAGNE

4.

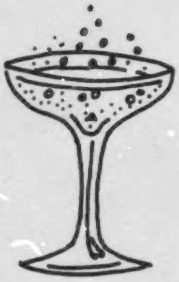


ICED TEA

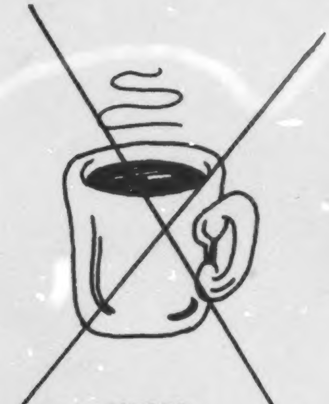


COCKTAIL

5.



CHAMPAGNE



COFFEE

Booklet III Instructions

1. Give each child a copy of Booklet III on which you have written his or her name in the space provided.

2. Read the directions on the test to the pupils. Read the sample question. On the board illustrate the X to be marked on the happy face (TRUE). Make sure the pupils have marked the sample item correctly before starting the test.

   Say: Now I am going to read the 12 questions to you. After I read each question, I am going to ask you to mark an X on the happy face if you think what I read is TRUE, or on the sad face if you think it is FALSE.

   Say: Look at question 1. Alcohol is not really a drug. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if what you think I read is FALSE.

   Say: Look at question 2. Alcohol is a drug that changes the way people feel. (Pause) Mark an X on the happy face is you believe what I read is TRUE. Mark an X on the sad face if what you think I read is FALSE.

   Say: Look at question 3. After drinking alcohol, some people walk funny and bump into things. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if what you think I read is FALSE.

   Say: Look at question 4. Alcohol is not a drug. (Pause) Mark an X on the happy face is you believe what I read is TRUE. Mark an X on the sad face if what you think I read is FALSE.

   Say: Look at question 5. Aspirin and alcohol both are drugs. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if what you think I read is FALSE.

   Say: Look at question 6. After drinking alcohol, some people act more friendly than usual. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if what you think I read is FALSE.

   Say: Look at question 7. After drinking alcohol, some people get angry and want to fight. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if what you think I read is FALSE.

   Say: Look at question 8. After drinking alcohol, some people act very silly and laugh a lot. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if what you think I read is FALSE.

Say: Look at question 9. After drinking alcohol, some people become very sad. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if what you think I read is FALSE.

Say: Look at question 10. Alcohol is a drug that helps people do things faster. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if what you think I read is FALSE.

Say: Look at question 11. After drinking alcohol, some people talk funny and it is hard to understand them. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if what you think I read is FALSE.

Say: Look at question 12. After drinking alcohol, some people get sick and throw up or fall asleep. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if what you think I read is FALSE.

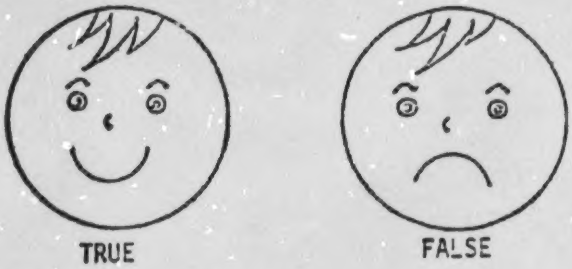
Pupil's Name ______________________
(Last) (First)

FIRST GRADE BOOKLET III

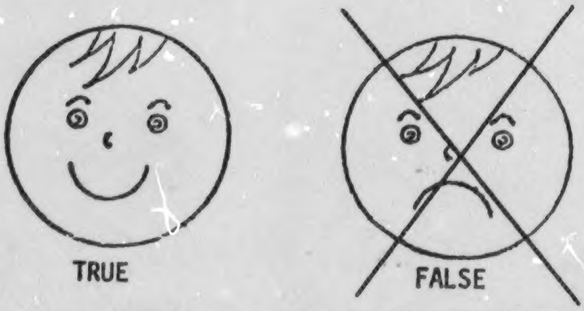
Directions: Lock below at the 12 pairs of happy and sad faces. I am going to read to you something about alcohol, the kind that some people drink. If you think what I read is TRUE, mark an X on the happy face. If you think what I read is FALSE, mark an X on the sad face. Let's try a sample question to see if you understand what I am asking you to do.

Sample: Alcohol can be very bad for people who drink too much of it. Do you think that is TRUE or FALSE? (Wait for an answer. If someone says TRUE, say "that's right." If no one gives an answer, tell the pupils that what you read is TRUE.) Then say, mark an X on the happy face, because what I read is TRUE. Do you understand?

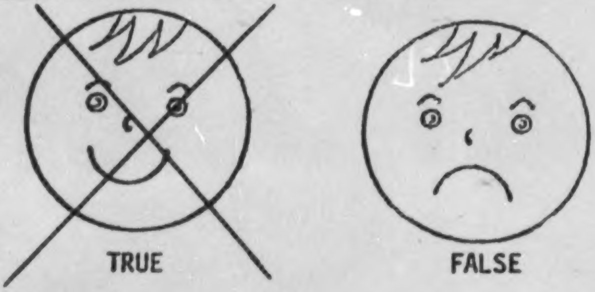
SAMPLE:



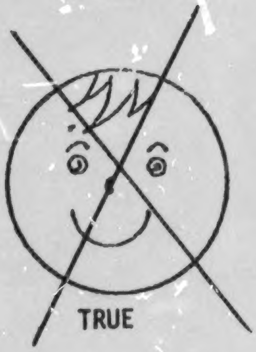
1.

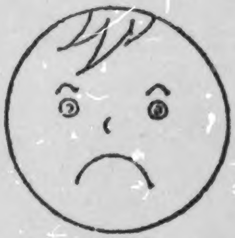


2.

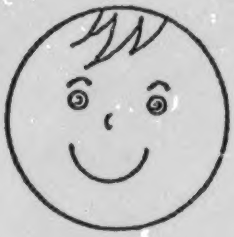


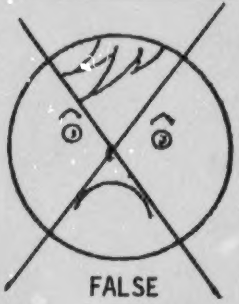
3.


TRUE

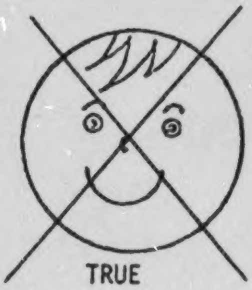

FALSE

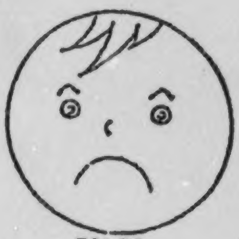
4.


TRUE

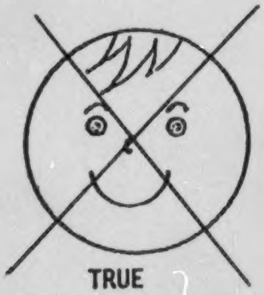

FALSE

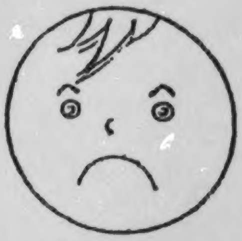
5.


TRUE

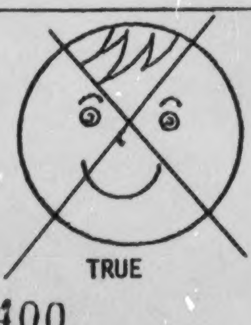

FALSE

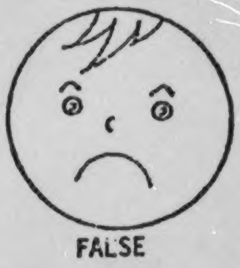
6.


TRUE

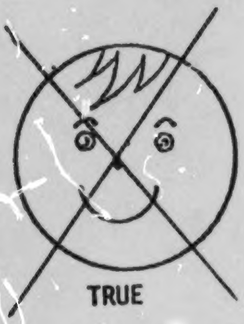

FALSE

7.

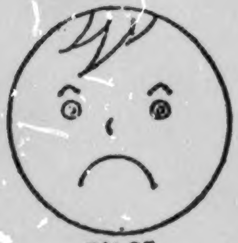

TRUE


FALSE

8.

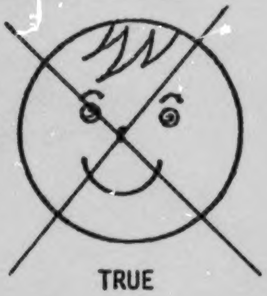


TRUE

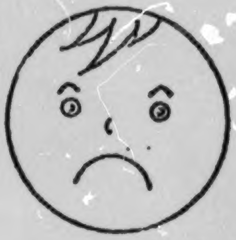


FALSE

9.

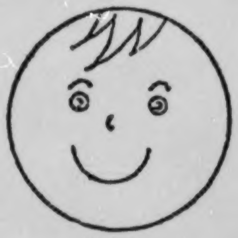


TRUE

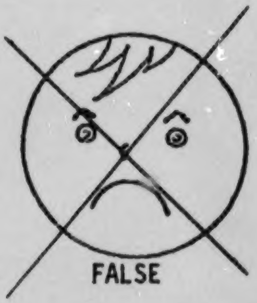


FALSE

10.

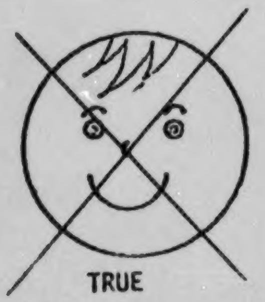


TRUE

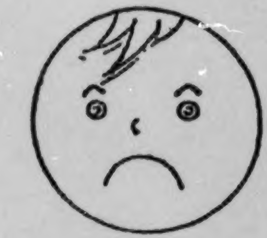


FALSE

11.

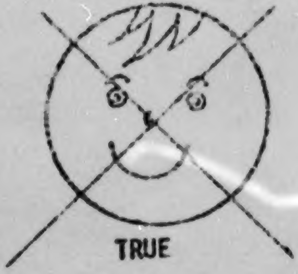


TRUE

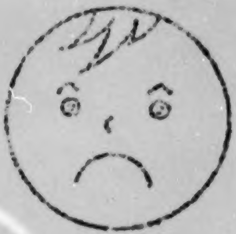


FALSE

12.



TRUE



FALSE

SECOND GRADE

The average times needed to administer the test booklets for second grade were: 18 minutes for Booklet I, 16 minutes for Booklet II, with a total average time of 35 minutes for all booklets. Total Booklets for second grade have an internal consistency reliability coefficient of .78 and a test-retest coefficient of .67.

There are four specific objectives measured at second grade. Specific Objective 1 is measured by items 1-5 of Booklet I. The internal consistency reliability coefficient is .50 for this objective. Specific Objective 2 is measured by items 6-10 of Booklet I. This objective has an internal consistency reliability coefficient of .54. Specific Objective 3 is measured by items 11-15 of Booklet I, and has an internal consistency reliability coefficient of .54. Specific Objective 4 is measured by items 16-20 of Booklet I and items 1-10 of Booklet II. The internal consistency reliability coefficient is .74 for this objective.

See pages 261-267 for a discussion of the results of the field-testing administration of the second grade booklets. Of particular note is the fact that Specific Objectives 1, 2 and 3 each are measured by only five items, and both experimental and control samples scored close to or above four on the pretest for these objectives. Additional items may be needed for more adequate evaluation.

Some of the field-testing teachers made the following comments about problems with the test battery:

1. Vocabulary was too difficult.
2. Some pupils were choosing answers they believe were expected of them rather than those they really believed.

3. Pupils had difficulty understanding and relating to the stories, especially those in Booklet II, for they were too complex.
4. The stories were too long and too numerous, especially those for Booklet II.

The following pages contain instructions for administration and a copy of the test battery for second grade with correct answers marked.

Instructions for Teachers

1. Administer Booklet I and Booklet II to your entire class.

2. Answer all questions in both booklets.

Booklet I Instructions

1. Give each pupil a copy of Booklet I on which you have written his or her name in the space provided.

2. Read the directions on the test to the pupils.

3. Read the sample question. On the board illustrate the X to be marked on the happy face (TRUE). Make sure the pupils have marked the sample item correctly before starting the test.

   Then say: Now I am going to read the 20 questions to you. After I read each question, I am going to ask you to mark an X on the happy face if you think what I read is TRUE, or on the sad face if you think it is FALSE.

   Say: Look at question 1. When people drink too much alcohol they do silly things they would not do when they are sober. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

   Say: Look at question 2. A little alcohol helps a person think better. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

   Say: Please turn the page.

   Say: Look at question 3. After a few drinks some people try to do things they know they can't do. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

   Say: Look at question 4. A few drinks can make some people disobey rules, like that which says they should cross a street at the corner. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

   Say: Look at question 5. A little alcohol sometimes leads people to do things they know they shouldn't do, like fighting, or breaking things. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

   Say: Look at question 6. Some people do things, like driving a car or riding a bicycle, as well after drinking a few beers as they did before drinking. (Pause) Mark an X on the happy face is you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

Say: Look at question 7. Simple things, like tying shoelaces or putting on a coat, that are easy to do before drinking alcohol become harder to do after drinking alcohol. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

Say: Please turn the page.

Say: Look at question 8. People who work outside in the cold can do better work after a few drinks. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

Say: Look at question 9. There are some things, like climbing a tree, that a person can do better after a few drinks. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

Say: Look at question 10. Easy things, like dialing a telephone or putting on a coat, become even easier after a few drinks. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

Say: Look at question 11. A little alcohol helps some people to see better. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

Say: Look at question 12. A few drinks makes it a little easier to tell how far away something like an automobile or a mountain is. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

Say: Please turn the page.

Say: Look at question 13. Drinking a lot causes some people to see two things, like two cars or two telephone poles, when there is really only one of each. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

Say: Look atquestion 14. Drinking can make it harder to see to the left side and the right side when a person is looking straight ahead. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

Say: Look at question 15. If the batter has a few drinks before playing softball, it is easier for him or her to hit the ball. (PAUSE) Mark an X on the happy face is you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

Say: Look at question 16. It would be safe for a person to drive a car after having only two beers. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

Say: Look at question 17. Just about anything a person can do safely before drinking, that same person can do safely after drinking. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

Say: Please turn the page.

Say: Look at question 18. If a person rides a bicycle after drinking a little wine, he or she is more likely to have an accident. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

Say: Look at question 19. A few drinks relaxes some people so that they are safer drivers. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

Say: Look at question 20. Crossing a road with a lot of traffic is not safe after having a lot to drink. (Pause) Mark an X on the happy face if you believe what I read is TRUE. Mark an X on the sad face if you think what I read is FALSE.

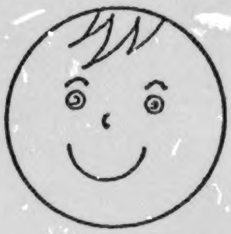
Pupil's Name ________________________________
(last) (first)

SECOND GRADE BOOKLET I

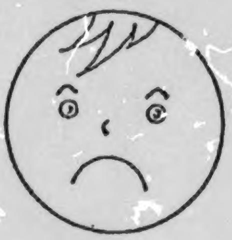
Directions: Look below at the 20 pairs of happy and sad faces. I am going to read you something about alcohol, the kind that some people drink. If you think what I read is TRUE, mark an X on the happy face. If you think what I read is FALSE, mark an X on the sad face. Let's try a sample question to see if you understand what I am asking you to do.

Sample: After a few alcoholic drinks some people who are usually quiet can become very noisy. Do you think that is TRUE or FALSE? (Wait for an answer. If someone says TRUE, say, "that's right." If no one gives an answer, tell the pupils the answer is TRUE.) Then say, "We are going to mark an X on the happy face, because what I read is TRUE. Do you understand?"

Sample:

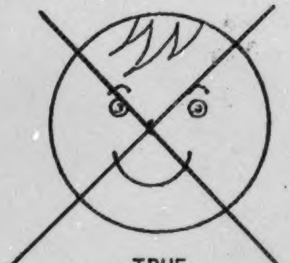


TRUE

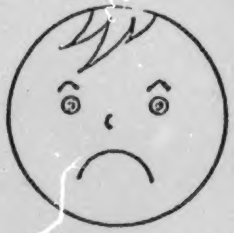


FALSE

1.

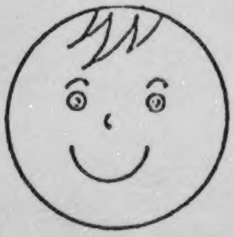


TRUE

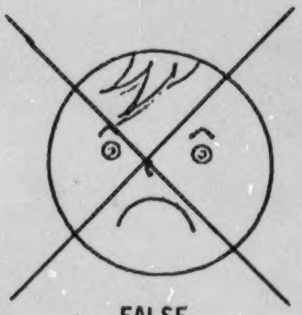


FALSE

2.



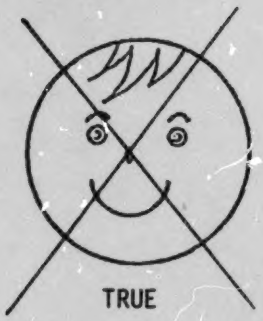
TRUE

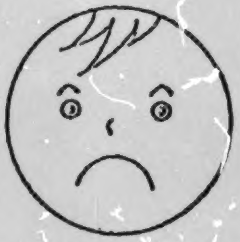


FALSE

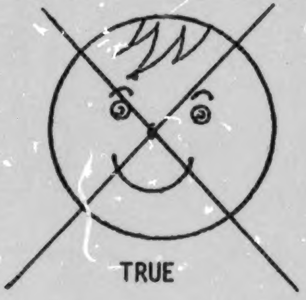
Grade 2: Booklet I, continued

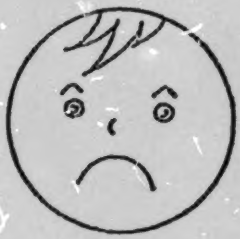
3.


[✓ TRUE]

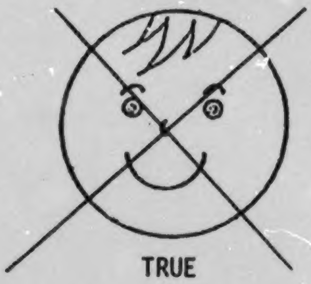

FALSE

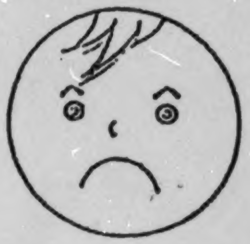
4.


[✓ TRUE]

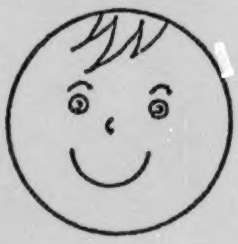

FALSE

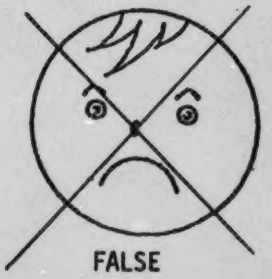
5.


[✓ TRUE]

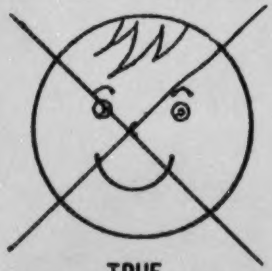

FALSE

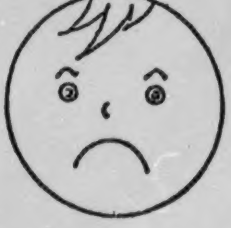
6.


TRUE

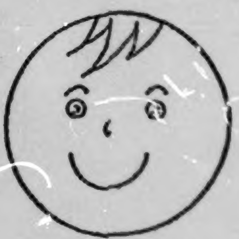

[✓ FALSE]

7.

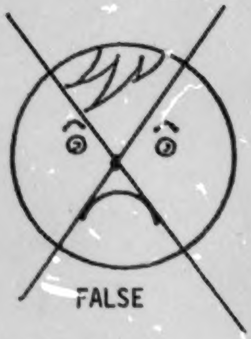

[✓ TRUE]


FALSE

8.

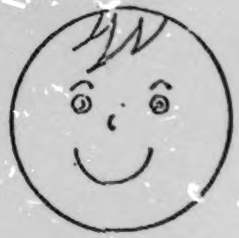


TRUE

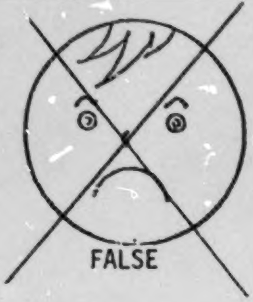


FALSE

9.

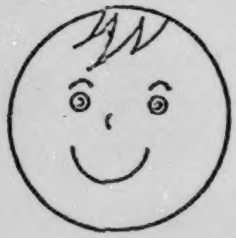


TRUE

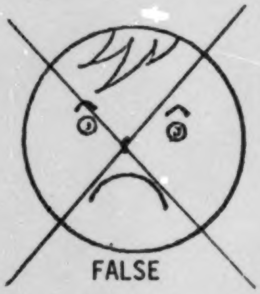


FALSE

10.

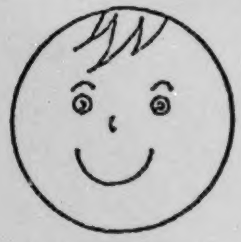


TRUE

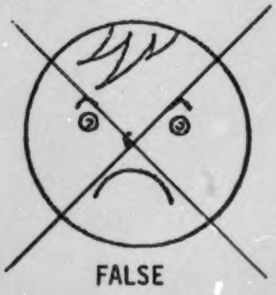


FALSE

11.

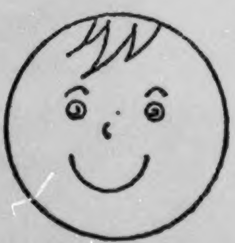


TRUE

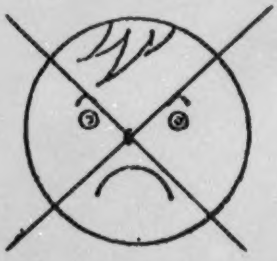


FALSE

12.



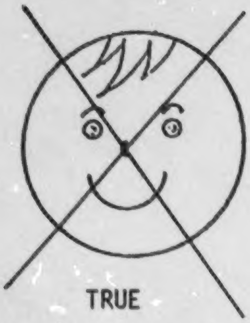
TRUE

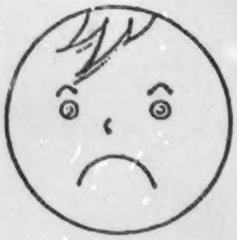


FALSE

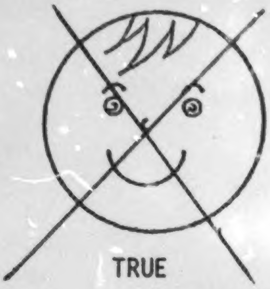
Grade 2: Booklet I, continued

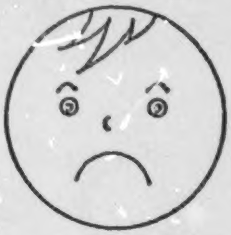
13.


TRUE

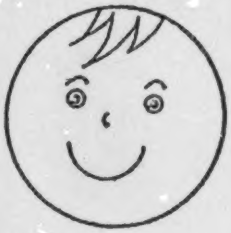

FALSE

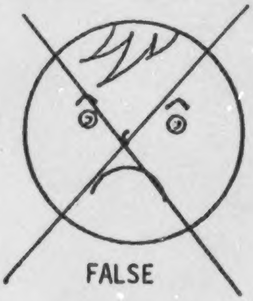
14.


TRUE

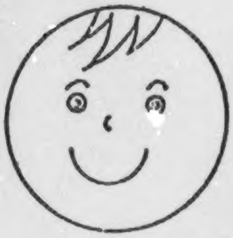

FALSE

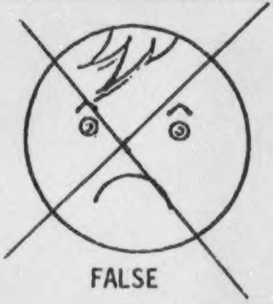
15.


TRUE

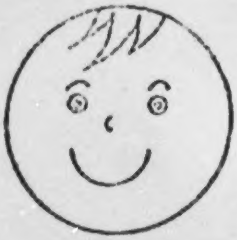

FALSE

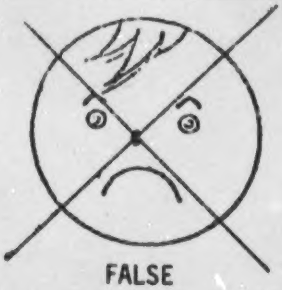
16.


TRUE


FALSE

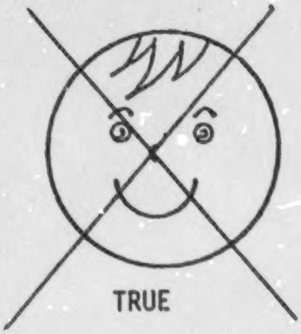
17.


TRUE

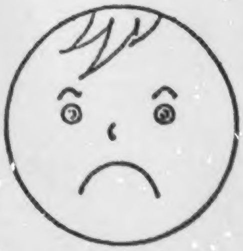

FALSE

Grade 2: Booklet I, continued

18.

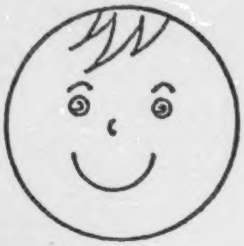


TRUE

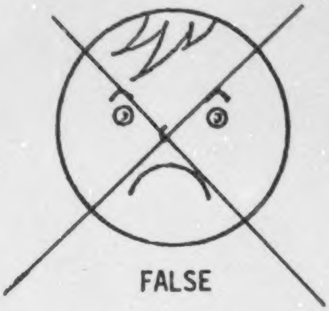


FALSE

19.

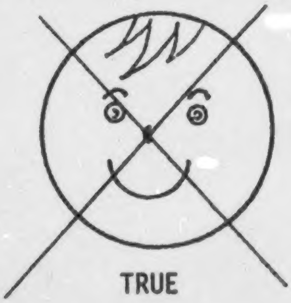


TRUE

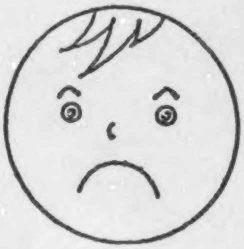


FALSE

20.



TRUE



FALSE

Booklet II Instructions

1. Give each child a copy of Booklet II on which you have written his or her name in the space provided.

2. Read the directions on the test to the pupils.

Sample 1. "Two fifteen-year-old boys are riding their bicycles on a hot summer day. They are very hot and thirsty. Would it be safe if they drank a cold can of beer?"

Wait for the children to answer, "No." Say, "That's right. Now look at the two faces that are next to the little square. Which face should you mark to show that it is not safe for the two boys to drink beer." Wait for the correct answer. When the children give the correct answer, say, "That's right. We would mark the face that is frowning. Mark an X on the face that is frowning." Check to be sure that the children have marked the answer correctly.

Sample 2. Put your finger on the little triangle. Now listen to the story. "Jean and Tom have just been married. They and a group of friends are having a wedding party. Would it be **safe** if all of the adults at the party had a glass of wine? If it would be safe, mark an X on the smiling face. If it would not be safe, mark an X on the frowning face."

Wait for the children to mark their answers, then ask, "Which face did you mark?" Wait for the correct answer, then say, "That's right. The X goes on the smiling face." Check to see that all children have marked the answer correctly.

Say: Please turn the page.

Question 1. Say, "Put your finger on the number 1. Listen to the story. Mr. Jones and the two men who live next door to him were sitting in Mr. Jones' backyard. It was a Saturday afternoon and the men were just talking and listening to a baseball game on the radio. Would it be safe if Mr. Jones and the other men drank beer? If the answer is Yes, mark an X on the smiling face. If the answer is No, mark an X on the frowning face."

Question 2. Say, "Put your finger on the number 2. Listen to the story. Mrs. Salty is giving a luncheon party for Mrs. Pepper, her neighbor, who is moving to another city in a few days. All of the women in the neighborhood were invited and all came to the party. Would it be safe if the women drank wine with their lunch? If the answer is Yes, mark an X on the smiling face. If the answer is No, mark an X on the frowning face."

Question 3. Say, "Put your finger on the number 3. Listen to the story. Mr. Gentry has invited all 40 people who work for him to his home for an afternoon outing and an outdoor barbecue. A company bus will pick up each worker at home to bring him to the outing and will take him back to his home after the party is over. Would it be safe for the workers to drink beer or other alcoholic beverages with their barbecue supper? If the answer is Yes, mark an X on the smiling face. If the answer is No, mark an X on the frowning face."

Question 4. Say, "Now put your finger on the number 4. Listen to the story. Five adults who worked together in an office decided that they would all go out and have dinner together after work. When they finished dinner, they would all go home on the same bus. Would it be safe for them to drink cocktails or other alcoholic beverages with their dinner? If the answer is Yes, mark an X on the smiling face. If the answer is No, mark an X on the frowning face."

Question 5. Say, "Now put your finger on the number 5. Listen to the story. Mr. and Mrs. Smith are celebrating their 50th wedding anniversary. Their adult children are giving them a big party. Would it be safe if the adults at the party drank wine or champagne? If the answer is Yes, mark an X on the smiling face. If the answer is No, mark an X on the frowning face."

Say: Please turn the page.

Question 6. Say, "Put your finger on the number 6. Listen to the story. Mr. and Mrs. Sprat are happy because Mr. Sprat was offered a job he wants. They are at home and their next-door neighbors stop in to visit. Would it be safe for Mr. and Mrs. Sprat and their neighbors to drink a cocktail to celebrate getting the new job? If the answer is Yes, mark an X on the smiling face. If the answer is No, mark an X on the frowning face."

Question 7. Say, "Put your finger on the number 7. Listen to the story. Mr. and Mrs. Green are driving from New York to Chicago to visit relatives. They want to get to Chicago as soon as possible. They will take turns driving, stopping only for meals. Would it be safe for Mr. and Mrs. Green to drink cocktails when they stop to eat? If the answer is Yes, mark an X on the smiling face. If the answer is No, mark an X on the frowning face."

Question 8. Say, "Put your finger on the number 8. Listen to the story. Thirty men and their sons are going to a football game in a city 20 miles away from home. They have hired a bus to take them to the stadium and to bring them home after the game. Would it be safe for the adults to drink some beer or other alcoholic beverages while they are eating lunch at the football stadium? If the answer is Yes, mark an X on the smiling face. If the answer is No, mark an X on the frowning face."

Question 9. Say, "Put your finger on the number 9. Listen to the story. Mrs. Mink and three of her friends usually spend an afternoon each month together at one of their houses. They eat lunch and then play cards for several hours. Would it be safe for Mrs. Mink and her friends to have a small glass of wine with their lunch? If the answer is Yes, mark an X on the smiling face. If the answer is No, mark an X on the frowning face."

Question 10. Say, "Put your finger on the number 10. Listen to the story. Mr. and Mrs. Spark have won a trip around the world. Friends and relatives will go to the ship to visit and to wish the Sparks a happy vacation. After the ship sails, the friends and relatives will go home together on the subway. Would it be safe for the Sparks, their friends and relatives to have a glass of champagne and fancy sandwiches before the ship sails? If the answer is Yes, mark an X on the smiling face. If the answer is No, mark an X on the frowning face."

Pre (E)

Pupil's Name ______________________________
(last) (first)

SECOND GRADE BOOKLET II

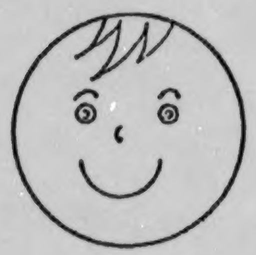
Directions: I will tell you some stories about people and what they are doing. After I tell you the story, I am going to ask you whether it would be safe if the people in the story drank alcohol such as beer, wine or liquor.

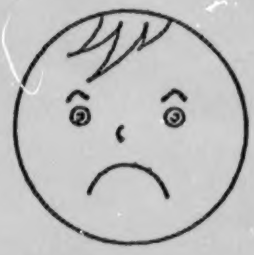
Look at the faces on this answer sheet. Place your finger on the little square. Look at the first face. It is smiling. This face means Yes, it would be safe for the people in the story to drink alcohol. Now look at the other face. See the mouth turned down. That face is frowning and means No, it would not be safe for the people to drink alcohol.

Now listen as I tell you the stories.

Sample 1

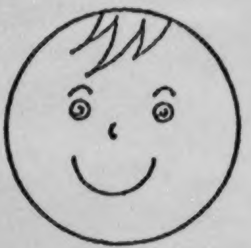
☐

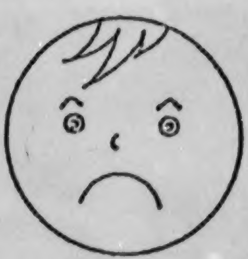

YES


NO

Sample 2

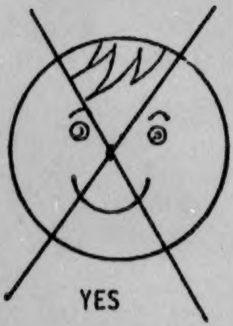
△


YES

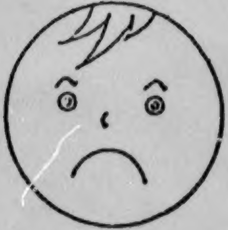

NO

Grade 2: Booklet II, continued

1.

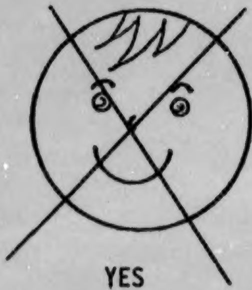


YES

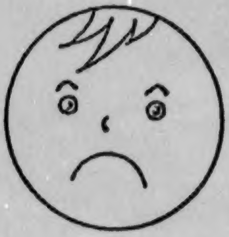


NO

2.

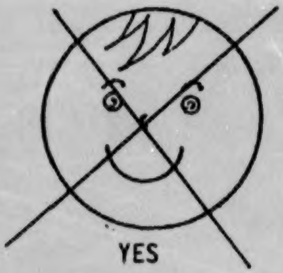


YES

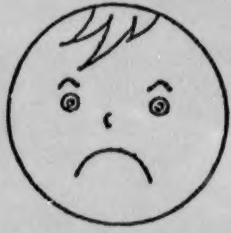


NO

3.

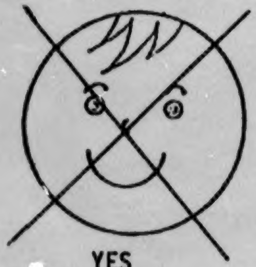


YES

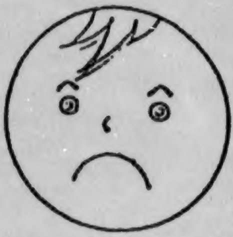


NO

4.

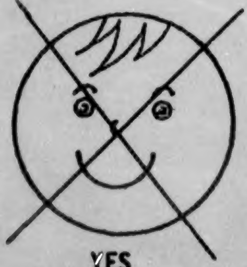


YES

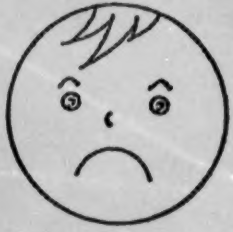


NO

5.



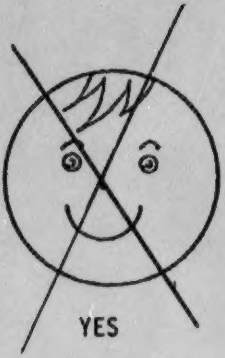
YES

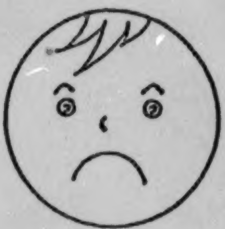


NO

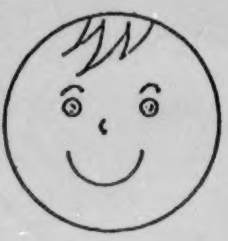
Grade 2: Booklet II, continued

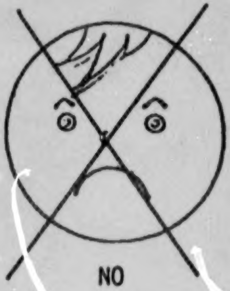
6.


YES

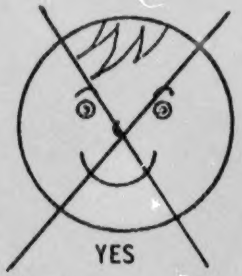

NO

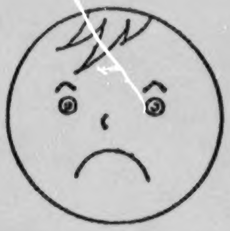
7.


YES

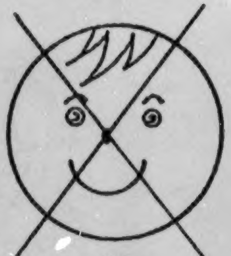

NO

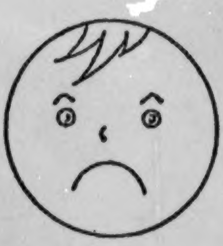
8.


YES

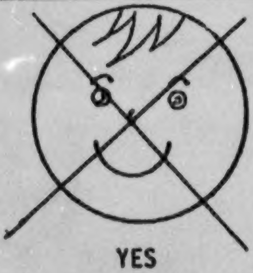

NO

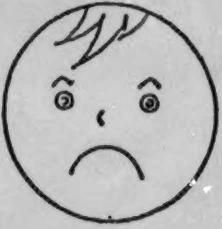
9.


YES


NO

10.


YES


NO

THIRD GRADE

The average times needed to administer the test booklets for third grade were: 13 minutes for Booklet I, 11 minutes for Booklet II, with a total average time of 23 minutes for both booklets.

Total booklets for third grade have an internal consistency reliability coefficient of .67 and a test-retest coefficient of .61.

There are three specific objectives measured at third grade. Specific Objective 1 is measured by items 1-5 of Booklet I and items 1-5 of Booklet II. The internal consistency reliability coefficient is .27 for this objective. Specific Objective 2 is measured by items 6-15 of Booklet I. This objective has an internal consistency reliability coefficient of .46. Specific Objective 3 is measured by items 16-20 of Booklet I and items 6-10 of Booklet II. The internal consistency reliability coefficient is .42 for this objective.

See pages 274-279 for a discussion of the results for the field-testing administration of the third grade booklets.

Some of the field-testing teachers made the following comments about problems with the test battery:

1. The vocabulary is too difficult for third grades. Illustrations of difficult or vague words are: coordination, fatal, high level, muscular, judgment, situation, reaction, tend, contributes, interfere.
2. Testing concepts and test questions are too difficult for third graders.
3. Booklet I is too difficult, and third graders are not yet equipped to answer true/false type questions.

The following pages contain instructions for administration and a copy of the test battery for third grade with the correct answers marked.

Instructions for Teachers

1. Administer Booklet I and Booklet II to your entire class.
2. Be sure all questions in both booklets are answered by all pupils.

Booklet I Instructions

1. Give each pupil a copy of Booklet I and have them write their names in the space provided.
2. Read the directions to the pupils and make sure they understand them.
3. Read each of the items to the pupils while they read along with you, allowing them enough time to mark their answers.

Pre (E)

Pupil's Name ________________________
(last) (first)

THIRD GRADE BOOKLET I

Directions: Read each of the following sentences as I read them to you.

Each sentence is followed by the words TRUE and FALSE. If the sentence is true, mark an X on the TRUE. If the sentence is false, mark an X on the FALSE.

1. Alcohol tends to reduce the risks people are willing to take. TRUE [✓ FALSE]
2. Alcohol makes most people more concerned about what others think. TRUE [✓ FALSE]
3. A little alcohol can improve judgment so that a person is less likely to get into an embarrassing situation. TRUE [✓ FALSE]
4. Because alcohol interferes with judgment, some people take risks without realizing they are. [✓ TRUE] FALSE
5. Although alcohol can affect judgment in some people, many persons are not affected in this way by drinking. TRUE [✓ FALSE]
6. Traffic accidents cause almost 2,000,000 (2 million) serious injuries each year. [✓ TRUE] FALSE
7. Alcohol does not affect a person's ability to drive a car. TRUE [✓ FALSE]
8. About 50,000 people are killed each year in traffic accidents. [✓ TRUE] FALSE
9. Cancer causes more deaths among school-age children than traffic accidents. TRUE [✓ FALSE]
10. Very few fatal traffic accidents involve drivers who have been drinking alcohol. TRUE [✓ FALSE]
11. It is unusual for children to be seriously injured in traffic accidents as long as they are passengers in a car. TRUE [✓ FALSE]
12. It is safe for a person who has been drinking to drive a car as long as the person says he feels fine. TRUE [✓ FALSE]
13. More automobile accidents are related to alcohol than to any other single reason. [✓ TRUE] FALSE
14. While a lot of people think they have answers, there is really no connection between drinking alcohol and automobile accidents. TRUE [✓ FALSE]

15. Alcohol contributes to about 50 percent of all fatal traffic accidents. [✓ TRUE] FALSE

16. A little alcohol can aid the kind of muscular coordination needed for shooting baskets or playing field hockey. TRUE [✓ FALSE]

17. Small amounts of alcohol may actually speed up reaction time. TRUE [✓ FALSE]

18. Even in large doses, alcohol rarely affects coordination. TRUE [✓ FALSE]

19. Alcohol affects people differently, so while some persons lose coordination, some people improve their coordination. TRUE [✓ FALSE]

20. Even a small amount of alcohol can interfere with tasks that require a high level of coordination, like threading a needle. [✓ TRUE] FALSE

Booklet II Instructions

1. Give each pupil a copy of Booklet II and have them write their names in the space provided.

2. Say: "Read the directions as I read them to you."

   Read the directions, making sure the pupils understand what they are to do.

3. Read each test question to the pupils allowing them enough time to mark their answers.

Pre (E)

Pupil's Name ______________________________
(last) (first)

THIRD GRADE BOOKLET II

Directions: Read the following story as I read it to you.

Mr. Haw sometimes drinks too much alcohol and gets drunk. Other times Mr. Haw does not drink any alcohol. Each of the following sentences tells you about something that Mr. Haw has done. You are to decide whether Mr. Haw had been drinking too much alcohol when he did the thing described in the sentence. If you think he had been drinking too much alcohol, mark an X on the YES. If you think Mr. Haw had not been drinking too much alcohol, mark an X on the NO.

1. Mr. Haw was driving three of his friends home one night. When Mr. Haw approached the railroad tracks, he stopped his car because a train was coming by. His three friends urged him to cross because he had plenty of time to get across the tracks before the train got there. Mr. Haw refused to cross the tracks until the train had passed.

   Do you think Mr. Haw had been drinking too much alcohol when he did this? YES [✓ NO]

2. Mr. Haw started to argue with his friends about politics. When his friends disagreed with his remarks, he got very angry with them and threatened to punch one of them in the nose.

   Do you think Mr. Haw had been drinking too much alcohol when he did this? [✓ YES] NO

3. Mr. Haw and his friends were at a baseball game. Some people sitting near them started making nasty remarks about Mr. Haw and his friends. Mr. Haw called the usher and had the usher give him and his friends different seats far away from the people who were making the nasty remarks.

   Do you think Mr. Haw had been drinking too much alcohol when he did this? YES [✓ NO]

4. Mr. Haw was watching television one night. In the middle of the program, the television screen went dark. Mr. Haw decided to repair the television himself. He unscrewed the back of the television set while the set was still hooked up to the electrical system. He reached in the back and got a very bad electrical shock that made him so mad that he kicked the television screen and broke it.

   Do you think Mr. Haw had been drinking too much alcohol when he did this? [✓ YES] NO

5. Mr. Haw went to a public meeting and disagreed with what the speaker was saying about raising taxes. Mr. Haw waited until the speaker asked if anyone in the audience had questions or comments, and then he politely gave his opinion.

Do you think Mr. Haw had been drinking too much alcohol when he did this? YES [✓ NO]

6. Mr. Haw was playing a game where he had to make very quick and very accurate movements to shoot down clay pigeons whenever they appeared. He did not know when or where the clay pigeons would appear. Mr. Haw shot down 18 out of the 20 clay pigeons in the game.

Do you think Mr. Haw had been drinking too much alcohol when he did this? YES [✓ NO]

7. Mr. Haw played short stop for his company's softball team. He fielded all the balls hit toward his position and threw them accurately to the bases. He did not make any errors.

Do you think Mr. Haw had been drinking too much alcohol while he was playing? YES [✓ NO]

8. Mr. Haw was reading the evening newspaper. Even though he was wearing his glasses, the words were blurry and he could not remember what was said in the few lines he was able to read.

Do you think Mr. Haw had been drinking too much alcohol when he did this? [✓ YES] NO

9. Mr. Haw played basketball on a company team. At the last game he scored the highest number of points and his team won the championship.

Do you think Mr. Haw had been drinking too much alcohol when he did this? YES [✓ NO]

10. Mr. Haw was driving home from work. He saw two cars in the distance and heard tires screeching. Mr. Haw pulled off the road just in time to avoid being hit by two cars involved in a drag race.

Do you think Mr. Haw had been drinking too much alcohol when he did this? YES [✓ NO]

FOURTH GRADE

The average times needed to administer the test booklets for fourth grade were: 18 minutes for Booklet I, 14 minutes for Booklet II, with a total average time of 32 minutes for both booklets. Total booklets for fourth grade have an internal consistency reliability coefficient of .80 and a test-retest coefficient of .63.

There are four specific objectives measured at fourth grade. Specific Objective 1 was measured by items 1-10 of Booklet I and items 1-7 of Booklet II. The internal consistency reliability coefficient is .51 for this objective. Specific Objective 2 was measured by items 11-20 of Booklet I and has an internal consistency reliability coefficient of .49. Specific Objective 3 was measured by items 21-29 of Booklet I. The internal consistency reliability coefficient is .44 for this objective. Objective 4 was measured by items 30-40 of Booklet I. The internal consistency reliability coefficient is .57 for this objective.

See pages 290-295 for a discussion of the results of the field-testing administration of the fourth grade booklets.

Some of the field-testing teachers made the following comments about problems with the test battery:

1. Pupils with reading problems had difficulty with the test booklets.
2. Vocabulary on the test was too difficult. Illustrations of vague or difficult words are: desirable, behave, pressure, embarrass, forbid, situation, adopt, frequently, behavior, influence, persuade, gulp, sip, intoxication, peer, beverage, relieve, abuse, alternative, irritate, benefit.

3. Wording on tests is too sophisticated and complicated.
4. True/false questions are too difficult.

The following pages contain instructions for administration and a copy of the test battery for fourth grade with the correct answers marked.

Instructions for Teachers

1. Administer Booklet I and Booklet II to your entire class.
2. Be sure all questions in both booklets are answered by all pupils.

Booklet I Instructions

1. Give each pupil a copy of Booklet I and have them write their names in the space provided.
2. Read the directions to the pupils and make sure they understand them.

Pupil's Name ______________________________
(Last) (First)

FOURTH GRADE BOOKLET I

Directions: Read each of the following sentences carefully. If the sentence is true, draw a circle around the word TRUE. If the sentence is false, draw a circle around the word FALSE.

1. It is all right to drink one can of beer to prove to your friends that you can drink. TRUE [✓ FALSE]
2. A true friend will respect you even if you refuse to do something that is not safe. [✓ TRUE] FALSE
3. If the captain of the school football team drinks and smokes, a number of his classmates are likely to think that drinking and smoking are desirable because he does them. [✓ TRUE] FALSE
4. Friends are important, and you should try to keep them even if it means doing what you do not want to do. TRUE [✓ FALSE]
5. If friends drink alcohol, it is natural to want to do the same thing to avoid being "different." [✓ TRUE] FALSE
6. Friends strongly influence the way most people behave. [✓ TRUE] FALSE
7. Most people do not let their friends influence their behavior. TRUE [✓ FALSE]
8. It is difficult to do what you want to do if your friends behave differently, because there is pressure to behave like them. [✓ TRUE] FALSE
9. Friends often influence whether a person drinks and how much the person drinks. [✓ TRUE] FALSE
10. Many teenagers are embarrassed to refuse a drink when pressured to drink by their friends. [✓ TRUE] FALSE
11. Adults frequently forbid children to do things that they do themselves, like drinking and smoking. [✓ TRUE] FALSE

Grade 4: Booklet I, continued

12. If you admire an athlete or rock star or other adult, it is always desirable to imitate their behavior. TRUE [✓ FALSE]

13. Each person must decide for himself or herself whether or not he or she is going to drink alcohol. [✓ TRUE] FALSE

14. Men who drink alcoholic beverages are likely to be better athletes than men who do not drink alcoholic beverages. TRUE [✓ FALSE]

15. Women who drink alcoholic beverages usually have more fun than women who do not drink alcoholic beverages. TRUE [✓ FALSE]

16. It is normal to want to do the same things as people we want to be like. [✓ TRUE] FALSE

17. Even though you may not want to drink, you should accept an alcoholic beverage offered to you by another child's parents. TRUE [✓ FALSE]

18. Young people often imitate actions of adults they admire so that they can feel more grown up. [✓ TRUE] FALSE

19. Famous people can be depended upon to show us behavior we should imitate. TRUE [✓ FALSE]

20. Young people often will adopt the drinking practices of older persons they like a lot. [✓ TRUE] FALSE

21. One does not need alcohol to relax or to be sociable. [✓ TRUE] FALSE

22. Alcoholic beverages are more likely to relieve thirst than nonalcoholic beverages. TRUE [✓ FALSE]

23. Adults who do not drink do not know how to relax. TRUE [✓ FALSE]

24. Before gettting into drinking situations it is usually a good idea for a person to consider what else he or she could do that would not involve drinking. [✓ TRUE] FALSE

25. It is perfectly safe to go to a party with people who have to drink to have fun as long as you do not drink. TRUE [✓ FALSE]

26. A person with problems at home is likely to be helped by having a few drinks. TRUE [✓ FALSE]

Grade 4: Booklet I, continued

27. People can relax with a drink or with a book or television or listening to music. [✓ TRUE] FALSE

28. There are benefits from drinking alcohol that a person cannot get without it. TRUE [✓ FALSE]

29. It is really not possible to have a happy life unless a person is willing to drink alcohol sometimes. TRUE [✓ FALSE]

30. If a member of a group refuses to drink alcohol, the other members should try to persuade him or her to try it. TRUE [✓ FALSE]

31. People at a party should not be pressured to drink to have a good time. [✓ TRUE] FALSE

32. It is all right to tease a person who does not drink alcohol as long as everyone knows it is just for fun. TRUE [✓ FALSE]

33. Kids have always called someone "chicken" or "sissy" for not doing something others were doing, so there's nothing wrong with calling people "chicken" if they don't want to drink. TRUE [✓ FALSE]

34. If a person chooses not to drink because he or she will be driving, it is all right to try to get him or her to have only one or two "for the road." TRUE [✓ FALSE]

35. Anything a person does or says to make someone uncomfortable about not drinking for whatever reason shows a lack of respect for the non-drinker. [✓ TRUE] FALSE

36. It's really OK to make fun of someone if he or she refuses a drink at a party, for everyone should be there to have fun. TRUE [✓ FALSE]

37. It is wrong for a person to laugh along with his or her friends at a person who doesn't drink. [✓ TRUE] FALSE

38. It is best not to offer someone a drink if you know he or she does not drink. [✓ TRUE] FALSE

39. A person who chooses not to drink usually does not like to be with other people. TRUE [✓ FALSE]

40. A person should let others know that it is OK if they choose not to drink. [✓ TRUE] FALSE

Booklet II Instructions

1. Give each pupil a copy of Booklet II and have them write their names in the space provided.
2. Read the directions to the pupils and make sure they understand them.

Pre (E)

Pupil's Name ______________________________
(Last) (First)

FOURTH GRADE BOOKLET II

Directions: On the inside pages you will find some stories which tell you about situations that some boys and girls find themselves in. Each story is followed by one or more questions that ask what a person in the story should do.

Read each story carefully. Then read each question. For each question, choose the answer that is the best thing for the person to do. Circle the letter in front of that choice.

Story 1: John's brother, Lee, is having a party to celebrate his 17th birthday. Their mother set up a table, just before the first guests arrived, with food and two large bowls of fruit punch. She has also provided a variety of soft drinks--pepsi cola, coca-cola and Dr. Pepper. Although their mother and father will be in the house, they have told Lee that he and his guests can have the first floor of the house to themselves and that they will stay on the second floor. Lee has promised his parents that there will be no drinking of alcohol and no smoking of pot. The first three guests arrive; all carrying packages. Lee greets them and brings them to the party room. He leaves them there while he answers the door bell. While Lee is gone, John sees one of the boys pouring a bottle of whiskey into one bowl of fruit punch. What should John do?

[✓ A.] Get Lee away from his guests and tell him what he saw.

B. Go tell his parents what he saw.

C. Take the bowl of punch into which the whiskey had been poured and empty it into the kitchen sink.

D. Say nothing to anyone--it's Lee's party.

Story 2: When Lee admitted two couples who had been invited, each offered him a six-pack of beer to make the party more fun. What should Lee do?

A. Accept the beer and put it with the soft drinks to cool.

[✓ B.] Thank them for bringing the beer but tell them to leave it in their car because no alcoholic drinks were to be served.

C. Tell them that he is sorry but they cannot come in because they had alcoholic drinks.

D. Accept the beer but lock it in a closet so his friends will not think that he is afraid to do something against his parent's wishes.

Grade 4: Booklet II, continued

Story 3: About two hours after the party started, the doorbell rang again. When Lee opened the door, he saw two couples who were in his class in school but who had not been invited to the party. They had two open bottles of wine and had obviously been drinking too much. What should Lee do?

A. Invite them in but ask them to leave the wine outside.

B. Invite them in but tell the other guests to ignore them and not to drink any of the wine.

[✓ C] Tell them to leave right now or he would call his parents.

Story 4: Ann is talking with a group of friends about a party that is being planned. Her friend, Sue, says: "If you go to the party, you will have to drink beer because everyone will be drinking beer." Ann does not want to drink beer but she does want to be with her friends at the party. If she does not go to the party, she is afraid that her friends will not ask her to do things with them in the future. If she does go to the party but refuses to drink beer, she is afraid that her friends will make fun of her and that she will feel embarrassed. What should Ann do?

A. Stay home.

[✓ B] Go to the party but refuse to drink beer.

C. Go to the party and drink just a little bit of beer to convince her friends that she is "one of them."

D. Go to the party, accept a glass or can or beer, but just pretend to drink it until she can find some place to pour it out.

Story 5: Peggy and Amy are sixteen years old. They both have permission to see a movie at a theatre ten miles away from their home. Amy's seventeen-year-old brother will drive them to the theatre and bring them home. After the movie, Amy finds her brother waiting in the car with an open can of beer in his hand and two empty cans on the floor. He offers each of the girls a drink. What should Amy do?

A. Tell her brother she knows he has been drinking and he will be in trouble with their parents when they get home.

B. Refuse the drink but ride home with her brother.

[✓ C] Call her parents from the theatre to find out what to do.

D. Drink the beer and ride home with her brother, not telling their parents what happened.

Grade 4: Booklet II, continued

Story 6: Bill is twelve years old. He is going camping with two adult leaders and several other boys his age. Two of the boys say that they will take wine in their duffle bags and they urge the other boys to do the same. Bill knows that drinking among the campers is forbidden by the leader. What should Bill do?

A. Say nothing and hope the boys forget to take the wine.

B. Inform the leader.

C. Join the crowd and take a bottle of wine along on the camping trip.

[✓ D] Discuss the situation with his parents.

Story 7: Jill is fourteen years old and is at a bridal shower with her family. The adults are drinking a fruit punch which contains vodka, and some is offered to Jill by a friend of the family. Jill is thirsty and would like to taste the punch. What should Jill do?

A. Drink all the punch she wants--the fruit juice is good for her.

B. Drink one glass of punch only.

[✓ C] Ask permission from her parents to taste the punch.

FIFTH GRADE

The average times needed to administer the test booklets for fifth grade were: 22 minutes for Booklet I, 19 minutes for Booklet II, with a total average time of 41 minutes for all booklets. Total booklets for fifth grade have an internal consistency reliability coefficient of .70 and a test-retest coefficient of .62.

There are three specific objectives measured at fifth grade. Specific Objective 1 was measured by items 1-9 of Booklet I. The internal consistency reliability coefficient is .41 for this objective. Specific Objective 2 is measured by items 10-22 of Booklet I and items 1-14 of Booklet II. This objective has an internal consistency reliability coefficient of .57. Objective 3 was measured by items 15-44 in Booklet II. The internal consistency reliability coefficient for this objective is .57.

See pages 306-311 for a discussion of the results of the field-testing administration of the fifth grade booklets.

Some of the field-testing teachers made the following comments about problems with the test battery:

1. The vocabulary was too difficult. Illustrations of vague or difficult words are: tranquilizers, beverage, moderate, oxidized, eliminated, dilute, sober, highball, cocktail.
2. Booklet II was too complex.
3. All test questions should be simplified.
4. Tests are too long and should be split up and given on different days.

The following pages contain instructions for administration and a copy of the test battery for fifth grade with the correct answers marked.

Instructions for Teachers

1. Administer Booklet I and Booklet II to your entire class.
2. Be sure all questions are answered by all pupils.

Booklet I Instructions

1. Give each pupil a copy of Booklet I and have them write their names as indicated in the space provided.
2. Read directions to pupils and make sure they understand them.

Pupil's Name ______________________
(Last) (First)

FIFTH GRADE: BOOKLET I

Directions: Read each question and the answer choices for each question. Decide which answer choice best answers the question. Draw a circle around the letter in front of the answer choice that you think is best.

1. Mr. Gee has been taking some medicine for his hay fever. The medicine has made him feel sleepy. He has some work that has to be done before he goes to his office tomorrow morning. He decided to drink two whiskey high balls to help him stay awake so that he could finish his work. Do you think Mr. Gee made a good decision? Why do you think so?

   A. Yes, because alcohol in small amounts could pep him up and keep him awake.

   B. No. Although the alcohol would keep him awake, it would dull his mind and he would not do good work.

   C. Yes, because the alcohol could make him relax so that he could get his work done.

   [✓ D.] No, because the alcohol combined with the medicine for his hay fever is likely to make him more sleepy.

2. Mrs. Chew's doctor has given her medicine to take for her high blood pressure. Her doctor told her not to drink any alcohol during the time that she was taking the medicine. Why do you think her doctor told her not to drink alcohol?

   A. Because alcohol acts in the body in exactly opposite ways to the medicine.

   [✓ B.] Because the alcohol and medicine taken together might cause serious harm.

   C. Because alcohol causes high blood pressure.

   D. Because drinking alcohol is bad for everyone.

Grade 5: Booklet I, continued

3. Mr. Able and Mr. Baker are both good drivers. Both of them take a medicine that has this warning on the label: Do not drive a car while you are taking this medicine. Mr. Able takes the medicine and immediately after taking it he drinks two cups of black coffee. Mr. Baker also takes the medicine and immediately after taking it he drinks two cans of beer. Which man is likely to show the greatest loss in driving skills?

   A. Mr. Able, because he has combined the medicine with the caffeine in the coffee.

   [✓ B.] Mr. Baker, because he has combined the medicine with alcohol.

   C. They will have the same loss in driving skills because both have taken the same medicine.

4. Why would it be dangerous for a person who had been drinking a lot of alcohol to take sleeping pills?

   A. Because a person drinking alcohol may take too many sleeping pills.

   [✓ B.] Because the alcohol and sleeping pills together could slow breathing so much that the person becomes unconscious.

   C. Because sleeping pills dissolve faster when there is alcohol in the stomach.

5. Hank has been taking cold tablets to relieve his sneezing and coughing. He still does not feel well and decides to have a drink of brandy to help him feel better for the drive home from work. Do you think Hank made a good decision? Why do you think so?

   A. Yes, because now he will be more alert and better able to concentrate on driving the car.

   B. Yes, because he will be more relaxed and a better driver.

   [✓ C.] No, because alcohol taken with a cold tablet can cause severe drowsiness.

   D. No, because alcohol taken with a cold tablet is likely to cause a person to feel excited.

Grade 5: Booklet I, continued

6. Mrs. Lim's doctor gave her medicine called a tranquilizer to help her relax. Her doctor told her not to drink alcohol during the time she is taking the medicine. Why do you think her doctor told her not to drink alcohol?

   A. Because alcohol makes some people feel nervous.

   B. Because tranquilizers will not dissolve well when there is alcohol in the stomach.

   C. Because alcohol makes the effect of the tranquilizer weaker.

   [✓ D] Because alcohol and tranquilizers taken together could cause a person to become unconscious.

7. Which combination of drugs is most likely to result in poor driving skills?

   A. Alcohol and coffee

   [✓ B] Alcohol and cold tablets

   C. Alcohol and cigarettes

   D. Alcohol and cola

8. Which of the following best demonstrates the effect of alcohol and sleeping pills taken together?

   A. 1 + 1 = 2

   B. 1 - 1 = 0

   [✓ C] 1 + 1 = 3

   D. 1 - 1 = 3

9. Which of the following may be harmful if taken at the same time as alcohol?

   A. Sleeping pills

   B. Cold remedies

   C. Tranquilizers

   [✓ D] All of the above

Grade 5: Booklet I, continued

10. Mr. B has been drinking two cocktails before dinner for five years. Troy, his brother-in-law, has never drunk any alcohol before but he joins Mr. B and has two cocktails before dinner. You would expect that the alcohol would have

A. stronger and quicker effect on Mr. B because he knows what to expect from alcohol.

[✓ B] stronger and quicker effect on Troy because he is not an experienced drinker.

C. equal effects on both Mr. B and Troy because they have drunk the same amount of alcohol.

11. Two glasses of wine drunk the hour before dinner are likely to have a quicker and stronger effect on a person than two glasses of wine drunk the hour after dinner because food in the stomach

A. dilutes the alcohol.

[✓ B] slows the rate at which alcohol is absorbed.

C. prevents the alcohol from entering the bloodstream.

12. Jane says that she always drinks white wine at a party because a glass of wine has less alcohol in it than does a cocktail that has one-and-one-half ounces of whiskey. Is she correct?

A. Yes, the usual serving of wine does contain less alcohol than a cocktail.

B. No, a glass of wine contains five ounces of alcohol whereas a cocktail contains only one-and-one-half ounces of whiskey.

[✓ C] No, a glass of wine and a cocktail have the same amount of alcohol.

13. John Johnson and Sam Samuelson work for the same company. Both are 21 years old, 6 feet tall and weigh 180 pounds. One day, right after work, both of them went to the same party where each of them drank three cocktails in one hour. John showed no effects from the cocktails but Sam was dizzy and told John that he felt sick. The alcohol probably had a stronger effect on Sam than on John because Sam

A. had not eaten anything before going to the party.

[✓ B] probably was not used to drinking alcohol.

C. is smaller than John.

D. was not as relaxed as John.

14. Jay is six feet tall and weighs 190 pounds. Rich is five feet six inches tall and weighs 140 pounds. Ike is five feet eleven inches tall and weighs 170 pounds. Jay, Rich and Ike all drank three bottles of beer in one hour. Which one probably felt the strongest effect from the beers?

A. Jay

[✓ B] Rich

C. Ike

15. Sally and Ann are at a party. Sally drank two beers in two hours and Ann drank two beers in thirty minutes. Why is Ann likely to feel stronger effects from the beer than Sally?

[✓ A] Because the alcohol in the beer could not be oxidized and eliminated from Ann's body.

B. Because the alcohol in the beer was absorbed faster in Ann's body and entered her bloodstream too quickly.

C. Because Ann drank more alcohol than Sally did.

16. April and her boyfriend had a fight. Her boyfriend left April's house and left April alone. April was very angry and very upset so she decided to have an alcoholic drink to calm herself. Was April's decision to drink alcohol a good decision?

A. Yes, because alcohol in moderation can have beneficial effects.

[✓ B] No, because she might drink too much or too fast while she is upset.

C. Yes, because the alcohol could help her forget the argument with her boyfriend.

D. No, because alcohol is absorbed more quickly in the bloodstream when a person is upset and angry.

17. Jeff is angry about something that happened at work and he decides to have a drink when he goes out for lunch. Because he is so upset, he gulps his drink and then has two more. How do you think Jeff is likely to act when he returns to work?

A. Happy

[✓ B] Angry

C. Sad

Grade 5: Booklet I, continued

18. Al, Bob and Carl are the same age and the same size. They usually drink alcoholic beverages only on special occasions. At a friend's party they each drank several cans of beer. Which of the men is likely to have a stronger effect from the beer?

[✓ A] Carl, who has 3 beers in 1 hour

B. Bob, who has 4 beers in 3 hours

C. Al, who has 5 beers in 5 hours

19. When is someone more likely to feel a stronger effect from one glass of wine?

A. After a full meal

[✓ B] Before a full meal

C. After a light snack

20. Which of the following people could you expect to feel a stronger effect from two whiskey cocktails?

A. A woman weighing 150 pounds

[✓ B] A man weighing 125 pounds

C. A woman weighing 175 pounds

21. Which of the following people would you expect to feel a stronger and quicker effect from two whiskey cocktails?

[✓ A] A man who rarely drinks alcoholic beverages

B. A man who has been drinking one whiskey cocktail before dinner for five years

C. A man who has been drinking two bottles of beer before dinner for five years

22. How does food in the stomach affect the digestion of alcohol?

A. Speeds the rate at which alcohol is absorbed

[✓ B] Slows the rate at which alcohol is absorbed

C. Makes no difference

Booklet II Instructions

1. Give each pupil a copy of Booklet II and have them write their names as indicated in the space provided.
2. Read directions to pupils and make sure they understand them.

Pupil's Name ____________________
(Last) (First)

FIFTH GRADE: BOOKLET II

Directions: Read each of the following statements carefully. If the statement if true, draw a circle around the word TRUE. If the statement is false, draw a circle around the word FALSE.

1. The most important influence on one's ability to "hold" one's liquor is how much one weighs. [✓ TRUE] FALSE
2. The presence or absence of food in the stomach has no influence on the effect a given amount of alcohol has on a person. TRUE [✓ FALSE]
3. Some experienced drinkers appear to be more sober than might be expected from the amount of alcohol consumed. [✓ TRUE] FALSE
4. Drinking milk before drinking an alcoholic beverage will slow down the absorption of alcohol into the body. [✓ TRUE] FALSE
5. A large person requires about the same amount of alcohol to get "high" as a small person. TRUE [✓ FALSE]
6. Alcohol taken on an empty stomach has a stronger effect because it gets absorbed more quickly. [✓ TRUE] FALSE
7. An habitual drinker generally can drink more before getting drunk than a person who rarely drinks. [✓ TRUE] FALSE
8. Eating while drinking will reduce the effect of drinking alcoholic beverages. [✓ TRUE] FALSE
9. The more a person weighs the more he can drink before getting drunk. [✓ TRUE] FALSE
10. The effects of a given amount of alcohol on a given individual are the same at all times. TRUE [✓ FALSE]
11. A drink in the afternoon has more lasting effects than a drink at night. TRUE [✓ FALSE]
12. Almost all persons will feel the same effect from the same amount of alcohol. TRUE [✓ FALSE]

Grade 5: Booklet II, continued

13. Effects produced by four alcoholic drinks in a given individual are different at different times. [✓ TRUE] FALSE

14. A given amount of alcohol will have more effect on a person who drinks heavily than on a person who has only a few drinks now and then. TRUE [✓ FALSE]

15. In the United States drinking alcoholic beverages is usually considered important for social and business relationships. [✓ TRUE] FALSE

16. It is estimated that approximately 85 percent of the adult Americans who drink misuse alcoholic beverages. TRUE [✓ FALSE]

17. Moderate drinking for adults can result in relaxation, better social relationships, and a feeling of well-being. [✓ TRUE] FALSE

18. Alcohol can help many people have a good time with family and friends. [✓ TRUE] FALSE

19. Alcohol used in moderation can have beneficial effects when used to celebrate special occasions. [✓ TRUE] FALSE

20. Alcohol can be a safety hazard if used in situations that require good judgment and coordination. [✓ TRUE] FALSE

21. All people experience the same problems with alcohol. TRUE [✓ FALSE]

22. No matter how often or how much a person drinks, sooner or later the bad effects will catch up with him. TRUE [✓ FALSE]

23. When used to excess, alcohol can interfere with good family and social relationships. [✓ TRUE] FALSE

24. Heavy drinking rarely causes people to do things which cause trouble with friends and family, although it may be bad for their jobs. TRUE [✓ FALSE]

25. All people find the same benefits in alcohol. TRUE [✓ FALSE]

26. For some people, drinking might interfere with having a good time. Such people should not drink. [✓ TRUE] FALSE

27. There is nothing wrong for an adult to have one cocktail before dinner each night. [✓ TRUE] FALSE

Grade 5: Booklet II, continued

28. One can make a wise decision about drinking alcohol only if one has tried alcohol at least once. TRUE [✓ FALSE]

29. If you know that a person that you like very much does not drink, you should not invite that person to a party where everyone else will be drinking. TRUE [✓ FALSE]

30. People always have more fun at a party when they are drinking alcohol. TRUE [✓ FALSE]

31. A person who refuses an alcoholic drink at a party is not being polite to the host. TRUE [✓ FALSE]

32. If a member of your group refuses to drink alcohol, the other members of the group should try to persuade him or her to try it. TRUE [✓ FALSE]

33. It is all right to tease a person who does not drink alcohol as long as everyone knows it is just for fun. TRUE [✓ FALSE]

34. Alcohol used in moderation can have a good effect on some people. [✓ TRUE] FALSE

35. Alcoholic beverages are inexpensive compared to non-alcoholic beverages. TRUE [✓ FALSE]

36. Regular, heavy drinking can have harmful effects on the body, but the effects on the mind are not usually serious. TRUE [✓ FALSE]

37. Drinking may cause family problems, but it rarely causes problems with friends. TRUE [✓ FALSE]

38. People react to alcohol in different ways depending upon the individual and the circumstances involved. [✓ TRUE] FALSE

39. The decision to drink or not to drink should be made for us by our friends and relatives. TRUE [✓ FALSE]

40. It is your responsibility to persuade other people not to drink. TRUE [✓ FALSE]

41. Teasing someone about his drinking is a good way to get him to change. TRUE [✓ FALSE]

42. It is not a good idea for people to use drinking as an activity in itself. [✓ TRUE] FALSE

43. Even though a person does not want to drink alcoholic beverages, it is better to accept a drink and sip it than to refuse an offer. TRUE [✓ FALSE]

44. Adults cannot usually have fun unless they drink alcohol. TRUE [✓ FALSE]

SIXTH GRADE

The average times needed to administer the test booklets for sixth grade were: 6 minutes for Booklet I, 23 minutes for Booklet II, 11 minutes for Booklet III, with a total average time of 40 minutes for all booklets. Total booklets for sixth grade had an internal consistency reliability coefficient of .78 and a test-retest coefficient of .71.

There were seven objectives measured at the sixth grade level. Objective 1 was measured by items 1-5 of Booklet I and items 1-7 of Booklet II. The internal consistency reliability coefficient is .43 for this objective. Objective 2 was measured by items 8-19 of Booklet II. The internal consistency reliability coefficient for this objective is .50. Objective 3 was measured by items 20-32 of Booklet II. The internal consistency reliability coefficient is .42 for this objective. Objective 4 was measured by items 33-49 of Booklet II. The internal consistency reliability coefficient for this objective is .41. Objective 5 was measured by items 50-54 of Booklet II and items 1-11 of Booklet III. The internal consistency reliability coefficient is .51 for this objective. Objective 6 was measured by items 55-68 of Booklet II. The internal consistency reliability coefficient for this objective is .45. Objective 7 was measured by items 69-74 of Booklet II. The internal consistency reliability coefficient for this objective is .55.

See pages 321-331 for a discussion of the results of the field-testing administration of the sixth grade booklets.

A few of the field-testing teachers made the following comments about problems with the test battery:

1. Three tests in a row are overwhelming; they take much too long.
2. The vocabulary is too difficult; Alateen and skid row are illustrations.
3. The test questions are too difficult.

The following pages contain instructions for administration and a copy of the test battery for sixth grade with the correct answers marked.

Instructions for Teachers

1. Administer Booklet I, Booklet II and Booklet III to your entire class.
2. Be sure all questions in all booklets are answered by all pupils.

Booklet I Instructions

1. Give each pupil a copy of Booklet I and have them write their names in the space provided.
2. Read directions to pupils and make sure they understand them.

Pupil's Name ______________________
(last) (first)

SIXTH GRADE: BOOKLET I

Directions: Read each of the situations given below and decide whether the behavior described in the situation is a possible sign of alcohol abuse. If it is, draw a circle around the letter A; if it is not, draw a circle around the letter B.

1. During the past year a family has had wine at dinner each night. They did not drink wine with dinner before.

   A. Possible sign of alcohol abuse.

   [✓ B] Not a sign of alcohol abuse.

2. Mr. C, who usually drinks very little alcohol, gets very drunk twice a year--on New Year's Eve and on his birthday. On these two occasions, he always insists upon getting in his car to drive around to sober himself up.

   [✓ A] Possible sign of alcohol abuse.

   B. Not a sign of alcohol abuse.

3. Three neighbors who live in the suburbs work in the city for different companies. Each day after work they meet in the bar at the railroad station and have a drink together before they take the train home.

   A. Possible sign of alcohol abuse.

   [✓ B] Not a sign of alcohol abuse.

4. Mr. and Mrs. Bell each have one cocktail before dinner while they talk to each other and relax. They have been doing this almost every evening for 15 years.

   A. Possible sign of alcohol abuse.

   [✓ B] Not a sign of alcohol abuse.

5. Bob does not usually drink alcohol. At a wedding, he has six glasses of champagne and insists upon driving his car over a winding road.

   [✓ A] Possible sign of alcohol abuse.

   B. Not a sign of alcohol abuse.

Booklet II Instructions

1. Give each pupil a copy of Booklet II, and have them write their names as indicated in the space provided.
2. Read directions to pupils and make sure they understand them.

Pupil's Name ______________________
(last) (first)

SIXTH GRADE: BOOKLET II

Directions: Read each of the statements given below. If the statement is true, draw a circle around the word TRUE. If the statement is false, draw a circle around the word FALSE.

1. Gulping the first few drinks is a sign of alcohol abuse. [✓ TRUE] FALSE
2. The alcoholic drinks because he or she enjoys it. TRUE [✓ FALSE]
3. Because of what alcohol can do to a person's life an alcoholic often becomes a "skid row" bum. TRUE [✓ FALSE]
4. A person cannot become an alcoholic by just drinking beer. TRUE [✓ FALSE]
5. Moderate consumption of alcohol by adults is generally not harmful to the body. [✓ TRUE] FALSE
6. Persons who get really drunk are alcoholics. TRUE [✓ FALSE]
7. Drinking just to escape from life's problems seldom is the beginning of a pattern of alcohol abuse. TRUE [✓ FALSE]
8. People who drink large amounts of alcohol rarely suffer from nutritional deficiencies because alcohol supplies the calories that the body needs. TRUE [✓ FALSE]
9. Children whose parents drink too much alcohol can help them to stop by obeying them and doing everything the parents want them to do. TRUE [✓ FALSE]
10. It is easy for alcoholics to stop drinking if they want to. TRUE [✓ FALSE]
11. Alcoholic parents who love their children seldom neglect them. TRUE [✓ FALSE]
12. People who get drunk are often ashamed of the way they act. [✓ TRUE] FALSE
13. After Mr. Able's eighteen-year-old son was killed in an automobile accident, Mr. Able started drinking excessively. His drinking should not concern his family because it will help him get over his grief about his son's death. TRUE [✓ FALSE]
14. Heavy drinkers tend to be honest about their drinking habits. TRUE [✓ FALSE]

Grade 6: Booklet II, continued

15. When a person drinks too much and neglects his children, this usually means he does not love his family. TRUE [✓ FALSE]

16. Heavy drinking does not usually cause problems in a marriage as long as both husband and wife drink. TRUE [✓ FALSE]

17. It is illegal to fire a person for drinking on the job. TRUE [✓ FALSE]

18. A person who gets drunk only once a week is not likely to do anything that would hurt himself or others. TRUE [✓ FALSE]

19. The problems that result from alcohol abuse are usually limited to the abuser's family. TRUE [✓ FALSE]

20. Girls and boys between the ages of 12 and 18 cannot be alcoholics. TRUE [✓ FALSE]

21. An alcoholic who is forced to seek treatment will not benefit from the treatment. TRUE [✓ FALSE]

22. An alcoholic differs from a social drinker in that the alcoholic cannot stop at only one drink, even if he wants to. [✓ TRUE] FALSE

23. The majority of alcoholics in the United States come from the unskilled group of workers. TRUE [✓ FALSE]

24. Alcohol ranks second as the drug that is most abused in the United States. TRUE [✓ FALSE]

25. The alcoholic can be treated as he or she realizes the need for help. [✓ TRUE] FALSE

26. People who drink too much alcohol only on special occasions cannot be called alcohol abusers. TRUE [✓ FALSE]

27. Although alcoholism is a serious condition, it is not this nation's greatest drug problem. TRUE [✓ FALSE]

28. Alcoholics can drink without getting into trouble as long as they drink only on special occasions. TRUE [✓ FALSE]

29. Women rarely become alcoholics. TRUE [✓ FALSE]

30. While it is important to hold out hope, alcoholism rarely can be successfully treated. TRUE [✓ FALSE]

31. Alcoholism is no more difficult to treat than a case of the flu. TRUE [✓ FALSE]

Grade 6: Booklet II, continued

32. Drinking too much alcohol can become a habit, but it is a habit which is easy to break. TRUE [✓ FALSE]

33. A woman whose husband drinks too much should seek help with the problem from her mother or best friend. TRUE [✓ FALSE]

34. The mother of a 14-year-old girl is an alcoholic and the girl is having many problems. A source of help for the girl would be Alateen. [✓ TRUE] FALSE

35. Alcoholics Anonymous (AA) treats alcoholism by using drugs that make drinking unpleasant. TRUE [✓ FALSE]

36. In a family where one member is an alcoholic, non-alcoholic members of the family frequently need help in adjusting to and working with the family. [✓ TRUE] FALSE

37. Alanon is an organization that has been successful in helping alcoholics control their drinking. TRUE [✓ FALSE]

38. The mother or father of an alcoholic is usually not a good source of help because they are not trained in the treatment of alcohol abuse. [✓ TRUE] FALSE

39. Alcoholics Anonymous (AA) has been successful in helping alcoholics, but there are very few communities in which these groups meet. TRUE [✓ FALSE]

40. Alateen is a drug that teenagers can take so that they will not drink too much alcohol. TRUE [✓ FALSE]

41. If an alcoholic refuses help, family and friends can learn to cope better after joining an organization called Alanon. [✓ TRUE] FALSE

42. Alanon is a drug that is given to alcoholics to prevent them from drinking. TRUE [✓ FALSE]

43. The Salvation Army offers complete treatment for alcoholics. TRUE [✓ FALSE]

44. Alcoholics Anonymous actively recruits members. TRUE [✓ FALSE]

45. A good person to get help from about a drinking problem is a bartender. TRUE [✓ FALSE]

46. A mental health center usually has counselors specially trained to deal with drinking problems. [✓ TRUE] FALSE

47. Liquor store owners can be a valuable source of help in dealing with an alcohol problem. TRUE [✓ FALSE]

Grade 6: Booklet II, continued

48. Clergymen can be helpful in dealing with an alcohol problem. [✓ TRUE] FALSE

49. Alanon and Alateen can help persons to understand an alcoholic friend or family member. [✓ TRUE] FALSE

50. Some people are better drivers after they have had a few drinks because they purposely drive more slowly. TRUE [✓ FALSE]

51. Just one or two drinks can reduce mental efficiency and physical coordination. [✓ TRUE] FALSE

52. Just four or five beers really do not interfere very much with driving ability. TRUE [✓ FALSE]

53. Being a safe pedestrian is easy enough so that a person does not have to worry very much about drinking if he has only to walk home through traffic. TRUE [✓ FALSE]

54. About one-half of adult pedestrians killed in traffic accidents were drinking before the accident. [✓ TRUE] FALSE

55. Alcohol may have greater effects on a 15-year-old male than on a 35-year-old male. [✓ TRUE] FALSE

56. Drivers between the ages of 15 and 24 are involved in about 35 percent of all accidents and fatalities. [✓ TRUE] FALSE

57. Most teenage drivers who have been involved in automobile accidents had drunk a large quantity of alcohol before driving. TRUE [✓ FALSE]

58. Teenage drivers generally are less able to judge correctly the risks involved in certain driving situations than are adult drivers. [✓ TRUE] FALSE

59. Teenagers are usually better drivers than their parents because teenagers are able to move faster than adults. TRUE [✓ FALSE]

60. Teenagers who drink and drive are more likely to have traffic accidents than adults who drink and drive. [✓ TRUE] FALSE

61. A small amount of alcohol before driving is not likely to cause any problems for the teenage driver. TRUE [✓ FALSE]

62. Young adults rarely are involved in drinking and driving offenses. TRUE [✓ FALSE]

63. Young adults have proportionately more accidents relating to driving after drinking than older adults. [✓ TRUE] FALSE

Grade 6: Booklet II, continued

64. Younger persons are more likely than older persons to crash after just one or two drinks because they have less experience with driving and drinking. [✓ TRUE] FALSE

65. Young adults can avoid crashes after drinking better than older persons because they are so much quicker and more alert. TRUE [✓ FALSE]

66. Almost all drinking and driving accidents are caused by young adults. TRUE [✓ FALSE]

67. Young people have a special drinking and driving problem because they have less driving experience than older persons. [✓ TRUE] FALSE

68. Young people have a special drinking and driving problem because they have less drinking experience than older persons. [✓ TRUE] FALSE

69. If a person who has been drinking a lot of alcohol insists upon driving his car, it is better to let him drive than to start an argument. TRUE [✓ FALSE]

70. It is alright to accept a ride with a friend of your family who has been drinking a lot of alcohol if you have no other way to get home. TRUE [✓ FALSE]

71. If you do not know what to do when a neighbor of yours who is drunk invites you to ride home with him, you should ask a friend of your own age what to do. TRUE [✓ FALSE]

72. It would be smart to go so far as to make up an excuse to avoid driving with someone who obviously had been drinking too much. [✓ TRUE] FALSE

73. If a group of a teenager's friends have been partying and have had too much to drink and want to go for a ride, and he says no and they call him "sissy," he should probably go rather than risk losing friends. TRUE [✓ FALSE]

74. If a person sees a friend who has been drinking getting ready to drive, he should do whatever he can to prevent the friend from driving. [✓ TRUE] FALSE

Booklet III Instructions

1. Give each pupil a copy of Booklet III, and have them write their names as indicated in the space provided.

2. Read directions to pupils and make sure they understand them.

Pupil's Name
(last) (first)

SIXTH GRADE: BOOKLET III

Directions: Read each of the questions below and select the best answer from the answer choices given. Draw a circle around the letter in front of the answer choice that you think is best.

1. How long does it take the average person to burn up 3/4 of an ounce of alcohol?

   A. About 15 minutes.

   B. About 30 minutes.

   [✓ C] About one hour.

   D. About two hours.

2. After drinking alcohol many people feel relaxed and excited because the alcohol

   A. makes them more sensitive to their surroundings.

   B. stimulates the nervous system.

   [✓ C] depresses the cortex.

   D. makes them forget their problems.

3. Lee drinks 3 twelve-ounce cans of beer in 30 minutes. Jean drinks 3 twelve-ounce cans of beer over a 4-hour period of time. Assuming all other things are equal, how will the driving skills of Lee and Jean be affected by the alcohol that they have drunk?

   [✓ A] Lee's driving skills will be more greatly affected by alcohol than Jean's.

   B. Jean's driving skills will be more greatly affected by alcohol than Lee's.

   C. Since they both drank the same amount of alcohol, Lee's and Jean's driving skills will be equally affected by the alcohol.

Grade 6: Booklet III, continued

4. Assume that a person has a reaction time of 15 seconds when that person has not been drinking alcohol. If the person drinks a large amount of alcohol, what will the person's reaction time probably be?

   A. Less than 15 seconds.

   B. Just about 15 seconds.

   [✓ C.] More than 15 seconds.

5. Which of the following is most likely to be affected first by drinking alcohol?

   A. Reaction time

   B. Coordination

   C. Speech

   [✓ D.] Judgment

6. A driver who has been drinking alcohol sometimes hits a pedestrian or runs into another car at an intersection because the driver

   A. is not concerned about other drivers or pedestrians.

   [✓ B.] cannot see very well to the right or left.

   C. is almost asleep at the wheel.

   D. thinks his driving skills are better than they really are.

7. Both drunken drivers and drunken pedestrians take more risks than sober drivers and pedestrians. Which of the following best explains why drinking alcohol usually leads to greater risk-taking behavior?

   A. Alcohol interferes with coordination.

   B. Alcohol increases reaction time.

   C. Alcohol stimulates the brain.

   [✓ D.] Alcohol anaesthetizes the cortex.

Grade 6: Booklet III, continued

8. Most people who drive cars know that driving while drunk increases the chances of having a fatal accident, yet many of these people will drive a car after they have been drinking. Which of the following best explains why these people drive after drinking alcohol?

    [✓ A.] They have lost, for a time, their ability to evaluate or judge their own behavior or skill.

    B. They do not care whether they have a fatal accident or not.

    C. They know that alcohol affects different people in different ways.

    D. Experience has taught them that drunken drivers do not always have fatal accidents.

9. In which order does a safe driver or careful pedestrian deal with traffic problems?

    A. Acts, decides, sees

    [✓ B.] Sees, decides, acts

    C. Decides, acts, sees

    D. Sees, acts, decides

10. As a person drinks more alcohol, which of the following is likely to be decreased?

    A. Risk-taking

    B. Reaction time

    [✓ C.] Vision

11. Which best describes the effects of alcohol on the driver?

    A. Speeds up reflexes, improves judgment and control

    B. Slows reflexes, improves judgment and control

    C. Worsens vision, improves judgment and control

    [✓ D.] Worsens vision, reduces judgment and control

APPENDIX C

DATA STORED AT TEACHERS COLLEGE,*

COLUMBIA UNIVERSITY

I. Pilot Study, November 1980.

A. Description of procedures, sample, instrumentation, and item data for complete original test battery. Item data includes difficulty levels and discrimination indices for each item.

B. A list of the items eliminated from the original test battery as a result of analysis of Pilot Study data.

II. Field Test, March-May 1981.

A. Reliability Coefficients and other Item data for each item of test battery Grades K-6.

B. Results of Analysis of Covariance for each test booklet, for Total Booklet at each grade level K-6, and for each of 24 specific objectives.

C. Results of Analysis of Covariance for Total Booklets at each grade level K-6, for 8 states.

D. The following information is available for each test booklet, for Total Booklets at each grade level, K-6, and for each of the 24 specific objectives, for Pretest and Posttest, Experimental and Control Groups:

1. Sample Size
   Mean
   Variance
   Standard Deviation
   Range
   Frequency Distribution
   Percentiles

2. Item Statistics
   - Mean
   - Variance
   - Standard Deviation
   - Discrimination Index
   - Difficulty Level

3. Matrix of Correlations between pairs of items and between each item and the total score on each booklet.

*Safety Research and Education Project, Box 90, Teachers College, Columbia University, New York, New York 10027.